

Westinghouse Plans for Last Lap Of Dealer-Getting Drive

(Concluded from Page 1, Column 1)

manager, conducted the meeting. Roger Bolin of the merchandising division presented most of the material. Other speakers included R. E. Imhoff, A. L. Billingsley, president of Fuller & Smith & Ross advertising agency, S. D. Mahan, L. K. Baxter, T. J. Newcomb, V. E. Vining, J. H. Ashbaugh, R. F. Bisbee, E. M. Olin, V. G. Vaughan, L. C. Paul, R. C. Richards, J. W. Johnston, J. W. McNair, M. C. Turpin, Paul Wilmore, Gil Baird, Miss Edna Sparkman, Paul Endriss, W. N. Kennon, H. M. Butzloff, C. A. Dostal, and George Taubeneck, editor of *ELECTRIC REFRIGERATION NEWS*.

Among the participants in the meeting were B. R. Massey, manager of the merchandising division of the Westinghouse Electric International Co., Adolfo Alvarez of Buenos Aires, and A. H. Lopez of Mexico City.

Before leaving, each supervisor was given a golf bag containing a collapsible easel with complete material for the visual demonstration of the year's sales plans to meetings of distributors and dealers.

Bolin Outlines Plan For Supervisors

Last day's sessions were devoted almost entirely to study of plans made by factory officials for the "concentration period" of Westinghouse' Complete Coverage Campaign which opened three months ago to run until March 31 (see Oct. 4 issue of *ELECTRIC REFRIGERATION NEWS*).

Presentation of these plans was made by Roger Bolin of the merchandise advertising department, who explained that distributors' activities during the first three months of the drive have prepared the way for a final three months of concentration upon signing up dealer prospects in open territories.

First step, said Mr. Bolin, will be to close all uncovered or ineffective principal trading centers. These towns will then be used as regional headquarters for closing prospective dealers in surrounding subordinate trading centers and rural towns. Meetings of prospective dealers in these principal trading centers will be used for closure purposes.

It is planned that each regional meeting of prospective dealers shall be held on a date coinciding with some special Westinghouse activity in that trading center—such as a local advertising campaign, or an opening-day celebration in the dealership just signed in the town.

To facilitate the task of keeping a check on wholesale salesmen's activities during the concentration period, calendars are being given to distributors on which may be shown each salesman's schedule of towns, and his

daily progress in closing prospective dealers.

In addition, each wholesale salesman has received a "diary" containing his day-by-day schedule for the concentration period, and space for recording daily, weekly, and monthly accomplishments. This diary is to be checked frequently by distributors' supervisors.

The little booklet also gives complete details on plans for the concentration period, explanations for use of all new selling materials, and a review of things to be done to make each dealer effective.

Sales supervisors in each distributor's territory are now compiling a list of preferred dealer prospects submitted by their wholesale salesmen. The list comprises the two best prospects in each principal and subordinate trading center, and the one best in each rural town.

Direct Mail Promotion

To each of these prospects will be sent five direct-mail pieces, the final mailing to reach the prospect the day previous to the scheduled closing date.

First piece is a letter from R. C. Cosgrove, declaring Westinghouse' recognition of the dealership as a strong outlet, and enclosing a "franchise comparison chart" around which the first three months of the complete coverage campaign were built.

Second piece is a broadside which will give the prospective retailer some idea of how Westinghouse plans to assist its dealers in 1934. It describes new advertising, illustrates window display materials, mailing pieces, and other selling helps and outlines the company's plan for using users this year. Caption of the broadside: "It's mild to say they satisfy."

Theme of the third mailing—another Cosgrove letter—is the satisfaction expressed by Westinghouse owners as related to the added sales and profits accruing to Westinghouse dealers from such satisfaction.

On the day following receipt of this letter, the prospective dealer will receive a fourth piece—a copy of Cold Selling Talk (Westinghouse organ for retailers) in which will appear an article directed at prospects.

Fifth and last mailing is another letter from Mr. Cosgrove in which he asks the prospective dealer to consider Westinghouse' product, advertising and sales promotion, factory-distributor cooperation, and prestige—then lend an attentive ear when the Westinghouse wholesale salesman calls.

During the concentration period, Mr. Bolin reminded the men, they will receive considerable help in their drive for dealers from advertising in eight trade publications, among them *ELECTRIC REFRIGERATION NEWS*.

And to give additional support, there will appear an advertisement in the Feb. 10 *Saturday Evening Post*

which has a double purpose—that of attracting both the retail buyer and the dealer prospect to the Westinghouse refrigerator.

The advertisement is composed chiefly of statements by H. G. Ratner, Westinghouse salesman in Greensburg, Pa., in which he spotlights (in pictures and text) features of Westinghouse refrigerators, and declares, "I make a friend wherever I sell a Westinghouse refrigerator."

As an aid to wholesale salesmen during the campaign's final three months, Westinghouse is presenting each man with a new "Jumbo Selling Book" (Oct. 4 *ELECTRIC REFRIGERATION NEWS*) similar to the one prepared three months ago except that it has a stiff cover and contains additional materials for use in dealer closures.

During the concentration period, all wholesale salesmen will receive a series of letters from headquarters in Mansfield, carrying facts on progress of the drive, and offering hints for doing a more productive job.

Climax of each wholesale salesman's closing presentation will be an outline of the Westinghouse "eight-part sales program" for 1934—the year being divided into eight selling periods, with advertising and sales promotion helps emphasizing the sales appeal of each period.

To assist the wholesale salesman in making his presentation of this program, a chart has been prepared which shows the seasons graphically, together with lists of advertising and promotional materials for use by dealers during the respective periods. A supplementary chart shows how and when national advertising will back up dealer effort during each season.

Feature of 1934 Westinghouse dealer help is a "newspaper advertising guidebook" for each sales period—each book containing an assortment of complete advertisements, headlines, copy paragraphs, logotypes, trade marks, refrigerator illustrations, and "atmosphere" illustrations of various sizes.

Provision is also made for preparation of local advertisements featuring satisfaction of local users, making it possible for each dealer to tie his advertising in with other localized activities.

Urges Adoption of Owners Club Plan

This year, Westinghouse factory officials and distributors will make a concerted effort to secure adoption of the "Owners Club Plan" by their refrigerator retailers. It is a plan for securing regular assistance from Westinghouse owners in locating good prospects—an adaptation of "using the user."

In explaining the plan, Mr. Bolin pointed out that since its success depends almost entirely on user good will, a dealer should begin its use by training his salesmen in refrigeration home economics so that they may help new owners to "enjoy all the benefits" of their electric refrigerators.

Remaining steps in the plan are

these:

Having made a sale and given a full demonstration of the refrigerator's features, plus a number of suggestions on cold cookery, the salesman presents the owner with a booklet explaining how she may receive merchandise awards for supplying the retailer with names of good prospects.

If interested, the owner signs the certificate on the booklet's flyleaf, and becomes a member of the Owners Club. She then receives five "owner club reward certificates," on each of which she may write the name of one prospect, with her reason for believing the prospect a good one.

When a certificate is received at the dealership, a "many thanks" card is mailed to the user, stating that if the prospect buys a Westinghouse within 60 days after that date, the user will receive a merchandise award.

A salesman then calls on the prospect, and when a sale is made, the club member is notified by telephone, and informed that she may select her prize immediately (from the booklet which she signed), or may allow sales to her other prospects to accumulate until she has sufficient credits for a larger award.

When a club member has used her five certificates, others are sent to her with a personal letter. Letters are also sent to members who have not returned all prospect certificates within a certain length of time.

Dealers may stock a supply of merchandise awards for display purposes, but are not required to do so. Instead, they may wait for club members to select their awards from club booklets, then order the merchandise from their distributors.

Delegates at Meeting

Supervisors who attended the meeting included these:

Westinghouse International: B. R. Massey, New York; Adolfo Alvarez, Buenos Aires; X. K. Lopez, Mexico City; Washington: M. C. Turpin. Atlanta: C. W. Lehner, L. S. McCrary, George Washington, C. B. Tyson, H. W. Brown, W. B. Creech, Philadelphia: S. W. Sorensen, K. K. Gordon, G. A. Constance, T. W. Evans, R. R. MacDonald, R. E. Cook, L. L. Dolin, E. M. Binns. Pittsburgh: J. W. Johnston, J. F. O'Donnell, St. Louis: Gene Reid, E. C. Ricker, A. D. Peabody, Chicago: H. M. Butzloff, J. J. Moffatt, R. M. Beatty. East Springfield: T. J. Newcomb, J. H. Ashbaugh, New York: Marshall Adams, Boston: B. F. Moody, J. H. Lide, Buffalo: J. R. Andrews, G. B. Slocum, Mr. Trautman. Rochester: B. T. Tremaine, C. L. Kirkpatrick, George Zerkel. Mansfield: J. F. Ehalt, R. F. Bisbee. Canadian Westinghouse: E. A. Lowden.

Factory officials who took part in the meeting included:

Ralph Leavenworth, R. C. Cosgrove, R. E. Imhoff, R. F. Bisbee, L. K. Baxter, J. H. Ashbaugh, E. M. Olin, V. G. Vaughan, L. C. Paul, Roger Bolin, T. J. Newcomb, V. E. Vining. J. W. Johnston, J. W. McNair, M. C. Turpin, S. M. Davison, Robert Richards, Gil Baird, Paul Wilmore, E. I. Sparkman, S. D. Mahan, Paul Endriss, W. N. Kennon, H. M. Butzloff, C. A. Dostal, and A. L. Billingsley, president, Fuller & Smith & Ross.

Alabama Distributor Declared Winner in G-E Sales Campaign

(Concluded from Page 1, Column 2)

practically every distributor sold twice or three times the number of units sold during any other similar period of the 14-week activity, according to G-E officials.

Cash value of stocks listed on the exchange was determined by distributors' percentage of quota achievement. Par value of stock certificates was \$2, based on 100 per cent of quota realization. Range shares held the lead during the last few weeks, and at the close of the campaign were quoted at an average price nationally of \$2.66.

Individual listings of range shares on a score of distributors' boards showed quotations of from \$2.66 to \$9.97 per share.

Domestic refrigeration shares were the next highest with an average quotation of \$2.45, an increase of 51 cents. Individual boards in 20 distributorships showed quotations ranging as high as \$5.72 per share.

Commercial refrigerator stock increased 24 cents per share the last week. Laundry equipment gained an average of 18 cents per share, and dishwasher stock rose 20 cents. Cleaner shares made an average increase of 18 cents per share.

In addition to those distributors who won membership on the board of governors, 16 others finished the campaign with quota percentages ranging from 100.9 per cent to 151.6 per cent. Seven others reported sales of from 91.3 per cent to 99.9 per cent of quota.

Records made by some salesmen brought to more than 250 the number of members of the current Toppers' Club, members of which will be guests of the General Electric Co. with all expenses paid on a trip to Bermuda in the near future.

Osberg's 4 Salesmen Are All Toppers

LAGRANGE, Ill.—Osberg Appliance Co., General Electric dealer here, has four salesmen. In 1933, all of them qualified as Toppers—G-E's name for quota crackers. They are Sam Kaar, Thomas M. Olsen, George E. Brothers, and A. L. Lindeblad. Mr. Kaar has been a Topper for five consecutive years.

Cordley & Hayes Sales Jump 60 Per Cent

NEW YORK CITY—Sales of Cordley & Hayes water coolers advanced 60 per cent during 1933 over sales in 1932, according to company officials here.

The Cordley & Hayes organization has been in the water cooler manufacturing business since 1889, and is planning to franchise additional dealers in 1934.

Westinghouse Sales Strategists Get Set for 1934 Campaign



"With gestures." Ray Cosgrove pictures a bright future for Westinghouse refrigerator sales. At his left are P. V. Danley and Joe O'Donnell, both of the Mansfield office.



In characteristic pose, Sam Vining, veteran of many refrigeration sales campaigns, drives home a point.



A. L. Billingsley, president of Fuller, Smith & Ross, looks over some Westinghouse sales promotion literature with Ralph Leavenworth.



Merrill Morrow, merchandise manager of the Pennsylvania Power & Light Co., is a bit tardy at meal time.



J. Aylor of the Mansfield office, E. M. Olin, Mansfield works manager, and L. K. Baxter, refrigeration service manager, were on hand.



W. L. Kennon, New York City; Bill Creech, Atlanta; and R. C. Cosgrove, Westinghouse refrigeration department manager, gather around J. A. Moffat (seated) of Chicago.



Ralph Leavenworth, director of all Westinghouse advertising; S. D. Mahan, S. M. Davison, Edna Sparkman, and G. R. Hunter sit in one of the business sessions.



Bob Richards (the man with the punch), publicity director for the refrigeration department, shows Paul Wilmore and Joe O'Donnell that he can "dish it out."



B. C. Davison (center) snaps his fingers and reads the good news as J. A. Moffat (at left), L. C. Paul (looking over Davison's shoulder), E. A. Lowden, and George Constance watch the proceedings closely.

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Entered as second-class
matter Aug. 1, 1927THREE DOLLARS PER YEAR
TEN CENTS PER COPYLeonard Opens
Series of Forty
Dealer MeetingsStrelinger, Mitchell, and
Ludington Will Be
In Charge

DETROIT — Largest sales, advertising, and promotion program in the history of the Leonard Refrigerator Co. is being launched at a series of 40 dealer meetings in key cities starting this month and continuing until the middle of April.

New Leonard national magazine advertising will provide 109 per cent greater circulation than that of last year, Sam C. Mitchell, advertising manager, states, and the cooperative newspaper program for the year will give considerably greater coverage.

The program just announced is part of a four-year activity program, which was outlined to distributors of this company at a convention in Detroit several weeks ago. It calls for progressively enlarged advertising campaigns, and dealer organization expansion programs.

Dealer meetings, at which the new selling program is being launched, are headed by Godfrey Strelinger, sales manager, Mr. Mitchell and Ralph Ludington, assistant sales manager.

First of the meetings was held in Buffalo Jan. 10, under auspices of H. B. Alderman, Inc., Leonard distributor there. More than 200 dealers attended (Concluded on Page 16, Column 1)

Terry Is New Gibson
Production Manager

GREENVILLE, Mich.—T. B. Terry, for three years chief inspector of Gibson Electric Refrigerator Corp., has been promoted to the position of production manager of the company, according to E. F. Born, service manager.

Before coming to the Gibson factory (Concluded on Page 16, Column 1)

Distributors to See New
Majestic Models Feb. 12

CHICAGO — Majestic distributors and their key men will meet Feb. 12 at the Edgewater Beach hotel here for a four-day meeting at which officials of Grigsby-Grunow Co. will introduce new refrigerator and radio lines for 1934, according to George T. Bryant, assistant general sales manager.

"Then We'll Head South..."



Godfrey Strelinger, sales manager of Leonard Refrigerator Co., Sam C. Mitchell, advertising manager (left), and Ralph Ludington, assistant sales manager (right), plan schedules for trips they will make to 40 key cities to introduce the company's 1934 sales program to Leonard dealers.

Department Stores Must Adopt New
Principles to Sell Appliances, Lutes Says

NEW YORK CITY, Jan. 16.—Department stores who plan to operate major appliance specialty selling departments will have to keep up with the sales promotion ideas and adopt some of the aggressiveness of their specialty selling retail competitors, Herschel Lutes, division merchandise manager of J. L. Hudson Co., declared today in addressing the National Retail Dry Goods Association convention.

One of the big problems that must be solved in the near future is the creation of a more harmonious relationship between the department store and the electrical manufacturers and their distributors, Mr. Lutes declared.

"The electrical manufacturers and distributors have much to improve in their conduct and attitude," the speaker said. "A larger margin of profit will have to be given on many items. The two of us may have to work out a compromise in the matter of salesmen's compensation. The rapid turnover of salespeople in specialty operation simply cannot exist in department stores."

"Some method of occasional specials (instead of cutting list price) will also have to be arranged for the stores. This may be private branded lines. Sales campaigns must be harmonized and approved by both sides before being launched. Direct competition between selling organizations of manufacturers and the stores is a thing that must be watched and will have

to be straightened out in some manner. "It forces stores to purchase from their competitors, who are also very aggressive retailers, and who sometimes use strange tactics to divert the sale away from us."

"Specialty operators who are now selling electrical appliances so successfully are just teeming with ideas of promotion. They are just bubbling over with enthusiasm and can and will suggest dozens of trick schemes and ways of getting more business."

"Because of the fact that they are not very familiar with department stores and their problems, many of these schemes will not be practical. But many more of them may not only (Concluded on Page 12, Column 1)

Cold Storage Drawer
Features New Jewett

BUFFALO—A "cold storage drawer" built into the bottom of the cabinet for the storage of fruits and vegetables at temperatures of 42° to 45° F. is the innovation which the Jewett Refrigerator Co. has incorporated in its new model D-70 household electric refrigerator.

The lower part of the cabinet is arranged with a removable, porcelain-finished drawer 18 in. wide, 15 in. deep, and 4½ in. high. This drawer is accessible from the front of the refrigerator and operates on roller bearing runways so designed that the drawer is maintained in a horizontal position when withdrawn by means of a handle. When closed, the drawer automatically locks tight against the double rubber gaskets.

The bottom of the main food compartment is designed so that it acts as a cover for the drawer and prevents the air currents circulating in the main food storage compartment from coming directly in contact with the contents of the drawer.

As neither the bottom of the food compartment or the drawer fits flush against the sides of the cabinet, cold air ducts are formed on each side of the bottom plate so that refrigerated air circulates around the drawer but not in it.

Principal idea of the storage drawer, according to Edgar B. Jewett, president of the Jewett Refrigerator Co., is to provide a convenient storage place for apples, oranges, lettuce, etc., which have a tendency to "roll around" and which are benefitted by (Concluded on Page 16, Column 3)

Fedders Opens Branch
In Cincinnati

CINCINNATI—Just opened at 222 E. Ninth St. here is a new branch of Buffalo's Fedders Mfg. Co. The branch will provide engineering and sales service to companies in this territory, and will maintain a complete stock of Fedders refrigeration products. In charge is Frank Haag, who has served in Fedders' development, engineering, and sales departments.

Manufacturers to Furnish
'Price' Model for TVAHearings on Extended
Surface Code Jan. 23

WASHINGTON, D. C.—Hearings on the proposed code of fair competition for the extended surface industry, which includes manufacturers of fin coils and condensers for refrigeration systems, will be held starting at 10 a. m. Tuesday, Jan. 23, in the sun parlor of the Washington hotel here.

The code is being submitted by the Association of Extended Surface Manufacturers, claiming to represent 67½ per cent of the industry.

200 G-E 'Toppers'
Set Sail for Bermuda

By George F. Taubeneck

NEW YORK CITY, Jan. 16 (Special Wire to ELECTRIC REFRIGERATION NEWS)—As a reward for their sales efforts during last year, 200 General Electric refrigerator salesmen set sail this afternoon for a week's holiday in Bermuda.

In addition to the "Toppers," a number of distributors and officials are on board the *S. S. Queen of Bermuda*, which will land at the tropical islands Thursday morning, Jan. 18. The "Toppers" will have three days in Bermuda.

Tonight at sea, P. B. Zimmerman, manager of G-E's specialty appliance sales department, will present pins to "Toppers." First year "Toppers" will receive plain pins; those who have been "Toppers" two years will be given 10 carat gold pins with two pearls; third year "Toppers" receive pins with four pearls; four year, pins with six pearls; fifth year, six pearls and a diamond.

After a luncheon at the Hotel Commodore, the "Toppers" boarded chartered buses, paraded through Manhattan streets, passed Rex Cole, Inc., show rooms, and then boarded their ship.

Gibson Selects Division
Winners in Competition

GREENVILLE, Mich.—Continuing its contest for selection of the modern Gibson girl, started through its dealer-distributor organization last fall, Gibson Electric Refrigerator Corp. here has announced four district winners, pictures of whom will be sent to Charles Dana Gibson, artist, for selection of the grand prize winner.

The district winners are Gertrude Baker, Irving, N. J.; Jean Corrigan, Kansas City, Mo.; Dorothy Mae Pierce, Los Angeles; and Frances Booth, Omaha. Each zone winner is to receive \$250 in cash, and a prize of \$1,250 will go to the girl chosen by Charles Dana Gibson.

Present Retailing Set-up
Will Be Undisturbed,
Lilienthal Says

WASHINGTON — Manufacturers of electrical appliances will furnish one low-priced "leader" model from their lines to be sold through existing channels of distribution in cooperation with the plan of the Tennessee Valley Authority's directors to promote the widespread use of electric power consuming devices in the TVA territory, if recommendations made public last week by a special committee of the National Electrical Manufacturer's Association are followed.

Seek to Reduce Costs

Starting with the manufacturer, the various steps in the course of the distribution of these appliances will be asked to take a smaller amount on each appliance if the Electric Home & Farm Authority can cut down any portion of their costs.

T. K. Quinn, vice president of the General Electric Co., and E. G. Blechler, general manager of the Frigidaire division of General Motors Corp., were members of the committee appointed by President J. S. Tittle of Nema to contact with David E. Lilienthal, director and general counsel of the TVA, the man who fostered the establishment of the EH&FA which will help finance and promote the sale of electrical appliances in the seven states which will benefit from the TVA electrification program.

Other members of the committee were: A. G. Kimball, chairman; A. L. Lindemann, and N. G. Symonds.

Committee's Recommendations

The essence of the recommendations of the Nema committee is embodied in these five points:

1. Maintain present channels of distribution.
2. Each manufacturer to provide one model from his line to be sold at a lesser profit, as a leader item.
3. TVA aid in reducing the cost of distribution by undertaking the preparation and publication of promotional literature, by aiding in the financing, by assuming wiring and installation costs, and by making use of existing credit, billing, and collecting facilities of the utilities and others.

Promotional Committee

4. A promotional committee be organized within the Tennessee Valley area in aid of which the manufacturers would supply the services of a man on a part time basis.

5. Although the plan would be naturally built around the sale of electric refrigerators, electric ranges, and electric water heaters, the financing (Continued on Page 3, Column 1)

Inspection - - For Officials Only



Grigsby-Grunow officials get their first look at the 1934 Majestic refrigerator. Left to right: LeRoi J. Williams, vice president; B. J. Grigsby, president; M. E. Paradise, works manager; John Ditzell, general sales manager; Earl Hadley, advertising manager; Floyd Masters, assistant sales manager; George Bryant, assistant sales manager; and (kneeling) R. C. Haimbaugh chief refrigeration engineer.

Preview of New Potter



C. C. Hull (right), president of Rex Mfg. Co., and his son, Hollis, examine one of the 1934 Potter cabinets as it comes off the Rex production line.

BY GEORGE F. TAUBENECK ---

Men Come and Go

Several important shifts in personnel made news in 1933—some of the old guard disappeared, new names climbed higher, and familiar faces reappeared in different positions or with different companies.

Coming as a great shock to his friends was the news of Col. Frank E. Smith's death Jan. 7 of pneumonia. Shortly before his death Colonel Smith had retired from the presidency of Servel, Inc., and had planned to reopen his New York office to continue his business as engineering and financial consultant.

Other deaths in the industry this year included C. T. Mutchner, well known publicity director of Frigidaire Corp., who succumbed to tuberculosis May 28 in Arizona. Three days before this, Herbert I. Lord, first vice president of Detroit Lubricator, died at his home in Detroit.

Arthur A. Trostler, assistant to the general sales manager of Grigsby-Grunow Co. was killed in an airplane crash outside Portland Ore., on Nov. 9.

Few of the major refrigeration companies continued through the year with an unchanged personnel.

General Electric started the ball rolling in January, with the announcement that P. B. Zimmerman, while continuing to manage the electric refrigeration department, would also assume direction of the new specialty appliance department created for distribution and sale of G-E ranges, dishwashers, and kitchens.

Remaining fairly static in personnel throughout the spring and summer, G-E announced another big shift in October. M. F. Mahony, who had been with the refrigeration department since its organization in 1927, announced his resignation at that time as manager of the merchandising division to organize his own corporation specializing in sales campaigns and merchandising service.

Coincident with Mr. Mahony's resignation, Mr. Zimmerman announced the discontinuance of the merchandising division and the creation of a retail division to be headed by A. L. Scaife. In his new position, Mr. Scaife has charge of all sales training.

A. M. Sweeney in November was moved from his position as manager of G-E's production and distribution division to direct sales of the electric refrigeration department, and was succeeded in the production end by Norman B. Ronning.

With the creation of the new General Electric Institute, formed by combination of the G-E Kitchen Institute and the General Electric Lighting Institute, L. C. Kent and Paul H. Dow were placed in charge of the new department.

From Frigidaire in April came the announcement that James J. Nance, manager of the sales planning division, had resigned to assume duties as vice president in charge of sales of the Standard Register Corp.

First 1933 appointment was that of H. J. Walker, Jr., to manage Frigidaire's public utility sales division.

W. D. McElhinny, long-time salesman and sales manager of the industry, left Copeland when that firm tottered in March, reappeared in May as head of the commercial refrigeration division at Frigidaire Corp.

Succeeding C. T. Mutchner as Frigidaire publicity head was James W. Irwin, appointed to his new post June 21. At about the same time, Lee A. Clark was moved up to manage the corporation's sales planning division.

Numerous resignations, promotions, and appointments throughout the year preceded Grigsby-Grunow's announcement of receivership.

Stepping up to assume the position as executive vice president and general manager formerly held by D. M. Compton (who resigned as "vice president, treasurer, and director of the Grigsby-Grunow Co." March 15) LeRoy J. Williams was first taken from his work as legal counsel and director of patents for the company in January and appointed assistant to President B. J. Grigsby.

At the same time, John F. Ditzell moved into the inner circle, and became vice president and general sales manager of the company. Harry Alter, one time Chicago Majestic distributor, was brought from his position as manager of the Northern Illinois Division office to the factory to assist Mr. Ditzell. (In November, Mr. Alter resigned, is now managing the northern Illinois distribution of Grunow radios and refrigerators.)

W. G. Peirce, Jr., resigned in March from assistant vice presidency of Majestic, and returned to his former position as manager and chairman of the board of Peirce-Phelps, Inc., Philadelphia distributor.

Charles Klopp was also promoted at

What Happened In 1933

To summarize the news which was made by the refrigeration industry in 1933, a resume of the year's events, trends, and movements started Dec. 27, is continued this week, and will be continued in the next issue.

this time to the position of Grigsby-Grunow field sales manager, and made the next news by resigning from the company June 7. He was succeeded by George T. Bryant, who later moved up to take Mr. Alter's position as assistant general sales manager in November. Floyd Masters was the next to fill the position of field sales manager, succeeding Mr. Bryant.

In October, H. M. Pauley, formerly radio service manager for Grigsby-Grunow, was made general service manager.

Final news of the year from the company came in December, with the announcement that LeRoy J. Williams and Thomas L. Marshall (Chicago attorney) had been appointed operating receivers for Grigsby-Grunow.

When Copeland Products, Inc., of Mt. Clemens went into the hands of a creditors' committee in March, resignations were requested of William Robert Wilson, president, and Edward H. Brown, vice president. Others who left the company were W. D. McElhinny; John R. Replogle, chief engineer; and Edward Hughes, vice president in charge of production. Mr. Hughes was appointed executive engineer of Norge Corp. the end of May.

Paul Deming, a newcomer in the field of electric refrigeration, was elected chairman of the board and president of the company at a June meeting of the new Copeland board of directors. E. W. Atwood, another newcomer, became vice president, and Carleton S. Smith was re-elected secretary and treasurer.

The board of directors appointed the following operating committee: Carleton S. Smith, chairman; Edward Barger, in charge of manufacturing; C. W. Hadden, sales manager; and O. G. Lomsky, purchasing agent.

Mr. Barger, longtime production manager, dropped out of this committee in August, and Mr. Lomsky resigned in October to become secretary-treasurer of Automobile Shippers, Inc., of Detroit. Mr. Hadden also resigned in October, and George Licence, service manager, went to Stewart-Warner Corp. Nov. 1.

A complete reorganization in personnel accompanied the purchase of Copeland by Winslow-Baker-Meyering Co. of Detroit. By the end of November, the following appointments had been made for the new Copeland Refrigeration Corp.: L. C. Winslow, president; L. H. D. Baker, vice president; Ralph Meyering, secretary-treasurer; and E. A. Costa, general manager. First three of these men hold the same positions in Winslow-Baker-Meyering Co.

Mr. Costa appointed W. G. Von Meyer Copeland commercial sales manager early in December.

First Westinghouse appointment of the year along the line of refrigeration was that of H. W. Wible, selected in February to head the new commercial refrigeration and cooking division.

Two other newcomers to Westinghouse this year were Sidney D. Mahan, placed in charge of merchandise advertising in October, and Vernon E. "Sam" Vining, formerly sales manager of Servel, Inc., and assistant sales manager of Grigsby-Grunow Co., who returned to the refrigeration field in December via a new position as Westinghouse refrigeration department and furniture store sales manager.

Upon resignation of Trupar Mfg. Co.'s vice president in charge of sales, L. G. Lindsay, Charles R. D'Olive succeeded to his position in April as sales manager. Shortly thereafter, H. C. Patterson joined the Mayflower organization as director of refrigeration sales planning and promotion.

Biggest shift in Mayflower personnel was the resignation of Harry J. Hunt as president at the end of October. R. O. Cunningham, formerly chief executive of Allied Products, Inc., Detroit automotive supply company, succeeded him, and Mr. Hunt plans to take over the Canadian Trupar plant in Hamilton, Ont.

Another company in which personnel turnover was quite complete this year was Stewart-Warner Co. of Chicago.

Resignation of W. J. Zucker May 5 as general sales manager, secretary, vice president, and director of the corporation was followed by the announcement that Frank A. Hiter would be transferred from managing sales in Stewart-Warner's subsidiary

Alemite Corp. to succeed Mr. Zucker.

A second Alemite executive, J. E. Otis, Jr., general manager of the subsidiary, profited by the good showing Alemite made last year when he was appointed executive vice president and general manager of Stewart-Warner and all its subsidiaries later in May.

Next to be drawn into the company was Charles D'Olive, transplanted from his new position at Trupar to manage the Stewart-Warner refrigeration department. He replaced C. W. Strawn.

In August, Charles B. Smith resigned as the corporation's chief executive, and Mr. Otis became acting president.

James A. Sterling, for two years, sales promotion manager for Norge Corp., was appointed national advertising manager of the organization in May.

At the same time, manager of Norge's export business was taken out of the hands of export agencies and placed under the supervision of John Knapp, vice president in charge of sales. C. L. Fossati, formerly with Willys Export Corp. which handled the Norge export account, was employed to manage the new department.

New chief commercial engineer of Norge Corp. was appointed late in May—Edward Hughes, formerly production manager of Copeland Products.

Initial personnel announcement of Kelvinator Corp. concerned the promotion, in June, of J. A. Harlan from sales manager in the oil burner and contract divisions, to the same position in the commercial division of the company.

J. S. Sayre, for six years Kelvinator sales manager, resigned in September to join Montgomery Ward Co. in Chicago as head of its household appliance division. The position he left vacant was filled by R. I. Petrie, Leonard sales manager, who in turn was succeeded at Leonard by Godfrey Strelinger, formerly manager of Kelvinator Corp.'s Detroit factory branch.

Merger of Grunow Corp. with United States Radio & Television Corp. to form the new General Household Utilities Co. brought a list of new officers.

Coincident with completion of the merger in July, it was announced that William C. Grunow would remain as president of the new concern, while J. Clark Coit, president of the Marion, Ind., corporation, would serve as chairman of the board.

Officer personnel was complete in August, with H. C. Bonfig as vice president; Ralph Trimarco, secretary; J. P. Rogers, treasurer; Sidney Arneson, assistant secretary; and P. J. Schlitz, assistant treasurer.

Sparks-Withington Co. of Jackson, Mich., consolidated advertising and promotional activities for its refrigerators, radios, and auto horns into one department in May, and put Guy C. Core, formerly advertising manager of the electric refrigeration division, in charge of it.

When refrigeration sales, in November, were consolidated with those of the other Spartan products and placed under the direction of E. T. H. Hutchinson, general sales manager of Sparks-Withington, Earl R. Brower, former sales manager of the refrigeration division, was named West Coast manager for the company.

F. J. Heideman, chief engineer of Kold-Hold Mfg. Co., Lansing, Mich., manufacturer of low-sides for commercial refrigerating equipment and refrigerated trucks, resigned his position in April. In May, A. L. Bogue, formerly associated with Kelvinator and Copeland, was selected to head the Kold-Hold sales department.

Gibson Electric Refrigerator Corp. in Greenville, Mich., took on E. B. Cheetham of the commercial division of Kelvinator in April to direct its commercial sales.

C. A. Baker, vice president of Baker Ice Machine Co. assumed personal charge of all Eastern sales activities of the company in May, with headquarters in New York City; while a month later F. E. Hartman, formerly Baker district sales manager in Omaha, was appointed general sales manager of Baker.

In July, Homer E. Capehart left his duties as president of the Packard Mfg. Co. to head the sales department of Rudolph Wurlitzer, Inc., in North Tonawanda, N. Y.

Manager of sales, service, and engineering for Brunner Mfg. Co. in Utica, N. Y., was the new title of Frank C. Obert in July, for five years Eastern commercial sales representative with Copeland.

The following month, Fred Erbach, chief engineer of General Refrigeration Sales Co. (Lipman) in Beloit, Wis., was moved up to vice president and general manager of the company.

That A. M. Taylor, lately merchandising director of Leonard, had joined Potter Refrigerator Corp. as director of marketing came as the final personnel announcement of the year, on Dec. 27.

Two other appointments (or elections) are of interest. In January, at a meeting in New York City of the Refrigeration Division of Nema, G. M. Johnston, president of Universal Cooler Corp., was unanimously chosen to succeed Louis Ruthenburg as chairman. Mr. Johnston was re-elected at the Nema annual meeting in Cleveland late in September, and Mr. Ruthenburg continues as consultant to the refrigeration division with offices in Detroit.

At the annual meeting of the American Society of Refrigeration Engineers, convened in New York City the first week in December, A. R. Stevenson, Jr., research engineer of General Electric Co. in Schenectady, N. Y., became president of the society, stepping into the place held this year by A. W. Oakley of Merchants Refrigerating Co.

Public Utility Merchandising

Utilities, which used to account for the biggest share of the industry's distribution, lost ground in 1933—although they were still a highly important factor.

That they will be increasingly important in appliance selling in 1934 seems indicated by the problems and struggles encountered in the past year.

For 1933 was not an easy year in the power and light business. President Roosevelt began rapping utility practices in his campaign speeches in 1932. Investigation by the Federal Trade Commission has brought about publicizing of certain flaws in the industry. Taxes were raised during the last year to the point where, in June, it was estimated that 27½ cents out of every dollar earned by gas and electric companies, in relation to operating income, was absorbed by taxation.

Transfer of the tax on electricity used for domestic and commercial purposes from the consumer to privately owned utilities was part of a House bill which passed the Senate in a revised form May 12.

Coincident with the tax problem, pressing demands for rate cuts were being made throughout the country; and many such cuts, voluntary and involuntary, were made.

Los Angeles Gas & Electric was forced by a United States Supreme Court order to reduce its rate in May; Southern Utah Power Co. made a reduction at about the same time. Commonwealth Edison Co. promised its consumers a rate cut early in the year, and New Yorkers began demanding lower schedules from their utilities.

Michigan, Kentucky, and Alabama were other states to feel the pressure for lowered rates in the spring of the year. And similar reductions and agitation for reductions went on all year.

Last announcement of a rate cut in 1933 came from Georgia Power Co., large Southern utility.

Electric Refrigeration Bureau

When the Edison Electric Institute assembled for its initial meeting in June, chief topics of discussion were the tax problem and taxation's relation to utility rate reduction.

The situation as outlined at the meeting seemed to be this, roughly: With increased taxes and present lowered current consumption, it was becoming increasingly difficult for utilities to reduce rates. And at the same time public opinion demanded such cuts.

"As taxes go up, and rates go down," stated F. A. Newton of Commonwealth & Southern Corp., New York, "there will be but one way for utilities to maintain a satisfactory income—they must make every effort to place more current-consuming appliances in the homes and stores of the country, and to increase the use of electricity by all industries."

Prohibitory laws did a right-about-face this year. In a decision handed down June 7, the Third Court of Civil Appeals of Texas held that the sale of gas and electric appliances is within the power of a public utility as incident to a public utility's principal business of manufacturing, supplying, and selling gas and electricity to the public for heating, lighting, and power purposes, and dissolved an injunction restraining the San Antonio Public Service Co. from purchasing and selling gas and electric appliances.

Also, the Kansas anti-merchandising law, which limited appliance sales by utility companies, was declared unconstitutional by the state supreme court in a decision delivered June 10.

Some echoes of the old troubles were heard, however. In May, the electric companies of New York City which are affiliated with Consolidated Gas Co. of New York (New York

Edison, United Electric Light & Power, Brooklyn Edison, New York & Queens Electric Light & Power Co.) announced their intention to withdraw from direct selling of electrical appliances and mazda lamps.

Refrigeration manufacturers and small dealers feel more kindly disposed toward utility merchandising since they have had a taste of department store merchandising methods.

Some manufacturers welcomed the turn of the tide from utilities to department and furniture stores, because they had found the utilities "tough" customers. They have now learned that the big retailers can be just as hard to deal with, and more so. As price chiselers, department stores have no equal; and in the past some of them have been willing to take refrigerators made by irresponsible manufacturers if they couldn't get the quotations they wanted from reliable makers.

Utilities, of course, won't put a standard machine on their lines if they have their way about it. Retailers appreciate that as well as manufacturers, for both have been hurt by the competition of the "fly-by-nights."

Which is another factor in the return to favor of central station merchandising departments.

Direct evidence of dealer-utility goodwill can be seen by such cooperative activities as that being sponsored by Consumers Power Co. of Michigan, which offers bonuses for electric ranges and water heaters installed on its power lines.

When Edison Electric Institute began to cut its budget and curtail the fundamental services previously considered necessary under N.E.L.A., one of the few functioning bodies kept under its banner was Electric Refrigeration Bureau.

Apparently, however, 1933 was the last year of this cooperative endeavor which was formed in 1931 for the purpose of promoting electric refrigeration sales.

Reason: Lack of funds, and lack of manufacturers' enthusiasm about supplying further funds. They believe the bureau has accomplished its original purpose, that there is no great need for further general industry promotion.

Reporting on work of the bureau at the E.E.I. meeting in June, Chairman J. E. Davidson, president of Nebraska Power Co. stated:

"By the end of 1933 the manufacturers' subscriptions of more than \$600,000 will have been spent for national advertising and administration purposes. More than \$5,000,000 will have been invested in local promotion from funds contributed by central stations and local sales outlets."

Three standard activities of the bureau have been the sponsoring of sales and sales promotion contests, setting of a quota for yearly sales of electric refrigerators, and formation of local bureaus throughout the country. In March of 1932 approximately 365 active local bureaus had been established.

Contests during 1931 included a Half Century contest, an Employees Purchase Plan for Electric Refrigerators, and a Christmas window display contest in which \$600 was distributed to winners.

In 1932 and 1933 this last event was repeated. A Legion of Honor contest, instituted to stimulate cooperation among local outlets in sales of refrigerators, was one of the main events of 1933. G. R. Conover, manager of Electrical Association of Philadelphia, was the national winner of this event.

Electric Refrigeration Week was established by the bureau in 1932, repeated in 1933. This past year a contest was held in connection with this week of promotional activity, in which seven cash awards totaling \$1,150 were offered for the best cooperative electric refrigeration shows.

First prize winner (\$500) in this contest was Electric and Radio Association of Kansas City.

In 1931, 1932, and 1933, a sales quota of 1,000,000 household refrigerators was set by Electric Refrigeration Bureau for the industry.

Further promotion of electric refrigerator sales has been carried out by extensive newspaper and magazine advertising, preparation of plan books and other promotional material for local dealers, work in the field largely under the direction of Dr. G. W. Allison, cooperative exhibits in connection with N.E.L.A. shows, and a nation-wide radio broadcast.

Ten manufacturers were contributing to the support of the bureau in 1932, and all but one (which waived the privilege) were represented on the executive committee.

J. E. Davidson has been chairman of the executive committee of the bureau since its inception, and George Brown has operated since the middle of 1931 as permanent secretary with headquarters in New York City.

In urging the industry to continue its support to Electric Refrigeration Bureau, Chairman Davidson pointed out to members of the E.E.I. at their meeting in June:

"As competition in electrical merchandise has become more and more keen, we have turned toward cooperation as a means of sales promotion."

Manufacturers Ask that TVA Actively Promote Sales of Electrical Appliances

(Continued from Page 1, Column 5)

plan that was suggested would take into account smaller appliances as well.

Several important details concerning the works of the EH&FA were brought to light by Mr. Lillenthal in his final meeting with the committee. Hitherto unpublished details of the plan were set forth by Mr. Lillenthal as follows:

The EH&FA will use the million dollars to be secured from NRA for organization, promotional and educational work in promoting the sale of electric consuming appliances in the Tennessee Valley area, and will secure up to 10 million dollars from the RFC for the purpose of financing these sales.

Limited to Tennessee Valley

For the time being the operations of the corporation will be limited to the Tennessee Valley area consisting of seven or eight states although it is of course capable of extension to a national basis. On this point, everyone who has had anything to do with this matter believes that this extension to a national basis will come just as soon as the plan has been shown to be at all successful in the TVA area and the demand will come from these other states.

On the matter of financing of sales, the plan now provides that retail outlets other than utilities will present

portance of quick action since the CWA and the Wheeler Dam activities were putting into the TVA territory larger amounts of ready cash than had been available for some time. He feels that it would be wise to secure advantage of this situation before the citizens spend their money for other purposes.

The Nema committee presented its report in three parts, or divisions.

The first division has to do with a study of the situation as it is now and includes a statistical table with comments thereon, data on present appliance saturation, comments on the present channels of distribution and an analysis of the important difficulties which must be overcome if sales are to be consummated in larger volume.

The second section of the report contains the recommendation of the committee for the sale of a larger volume of appliances.

The third section of the report indicates the effect on employment in the electric range, water heating, and refrigeration industry should sales be expanded in anything like the suggested volume.

Comments on Statistical Table

Practically all the negro families can be eliminated as present prospects for electrical appliances.

Population is scattered.

The ability of the people of the

State	No. of Families	Per Cent of Negro	Population Per Sq. Mile	No. of Towns and Villages Over 25,000	Spendable Money Per Capita	No. of Domestic Electric Customers
Alabama	592,530	37.6	51.6	3	\$132.30	152,238
Georgia	654,009	38.3	49.5	5	155.20	162,563
Mississippi	472,354	53.1	43.3	2	119.80	83,136
Tennessee	601,578	20.0	62.8	5	168.70	201,626
Kentucky	610,288	10.0	65.0	6	145.20	225,619
North Carolina	645,245	28.0	65.0	8	150.50	202,076
South Carolina	366,265	46.0	57.0	4	166.70	100,941

*Virginia is omitted.

customers paper to the utilities. The utility will then combine the paper which covers their own sales as well as the sales by dealers and present it to the corporation which will take up this paper.

The corporation will then issue, with this customer paper as collateral, trust certificates for sale to banks. These trust certificates will run for 30, 60, and 90 days and are redeemable on demand making it possible to secure a rate of not exceeding 4 per cent and possibly less.

Financing Plans

Financing as indicated on favorable terms will be extended only to the leader items. Terms will be for as long as four years with shorter periods if desired by the purchaser. With the shorter periods will come less cost for financing.

Although the exact details are not yet determined it is planned that the seller to the ultimate consumer, in other words the one who first takes the paper, must bear some portion of possible credit losses.

Just as the plan does not contemplate an expansion of productive capacity, so Mr. Lillenthal is hopeful that the distributive facilities will not be unduly expanded but that instead the present facilities may take care of the situation and so be enabled to make a satisfactory profit.

The plan provides for rural electrification on a scale not yet contemplated. This electrification program is primarily the work of the TVA, which will extend lines into rural territory as fast as may be feasible. It is completely electrifying 11 counties in its area for test cases.

License Manufacturers

The EH&FA will license manufacturers whose product is to be sold with the cooperation of the corporation. To be eligible for such license, a manufacturer must be a present going concern producing electric ranges, electric water heaters, or electric refrigerators, or a suitable farm appliance, and must be in good standing with NRA and the code authority designated by NRA. Furthermore, such concerns must be known as manufacturers of products of normal quality.

Each eligible manufacturer of these lines of equipment will be privileged to determine for himself the particular item of this line which best suits the need for this promotional campaign in the TVA territory and thereupon to submit to the corporation a statement of his specifications and price. Thereupon the corporation will see that the product is tested possibly by the Bureau of Standards but in all cases final approval rests in the hands of the EH&FA.

The TVA will buy appliances indicated to a limited extent only and in such cases will make these purchases as an individual utility.

Mr. Lillenthal has stressed the im-

valley to buy is measured to a large degree by per capita spendable money income. Only the states of Arkansas, Louisiana, New Mexico, Virginia, and West Virginia rank lower than the highest of the eight valley states in this factor of buying power.

The number of domestic electric customers for each state is given as of Dec. 31, 1931. Estimate of the number of domestic electric customers actually within the territory of the Valley at this time is 500,000. About 26 per cent of these customers use 15 kwh. or less per month.

Appliance Saturation in the Valley

Approximately 23 per cent of the domestic electric customers now use electric refrigerators, approximately 11 per cent use electric ranges, and approximately 2 per cent use electric water heaters.

If the 26 per cent small users be eliminated as good prospects as well as the 23 per cent of the present refrigerator users the net refrigerator prospects in the Tennessee Valley area total 255,000. By like calculation the range prospects number 315,000, and water heater prospects 360,000. If 10 per cent of these prospects are sold in 1934 the added kilowatt hours would be:

25,500 refrigerators @ 750 Kwh. annually	19,125,000 Kwh.
31,500 ranges @ 1,800 Kwh. annually	56,700,000 Kwh.
36,000 water heaters @ 3,000 Kwh. annually	108,000,000 Kwh.
Total kwh. annually....	183,825,000

Any multiple of this 10 per cent figure may be used to determine kwh. consumption in the event of greater sales realization. Our experience shows that refrigerators, ranges, and water heaters are not sold in the relative proportion indicated.

The sale of these appliances, to 10 per cent of the prospects as listed in the above table would require an investment by users of electric current of approximately \$13,000,000. With money income as low as indicated, it is quite evident that sales of this volume would require financing on terms even more liberal than have been given in the past.

Channels of Distribution

The channels through which electrical appliances are now passed in their trip from the manufacturer's plant to the home of the consumer have an important bearing on our study.

The normal course is for the goods to be shipped either from a factory to a wholesaler or from a factory to a wholesaler via a manufacturer's local warehouse. From the wholesaler the goods go to retailers of various types and so to the ultimate consumer.

Where retailers handle the appliances in sufficient volume some manufacturers have been accustomed to shipping direct to the retailer. Some

(Concluded on Page 4, Column 1)

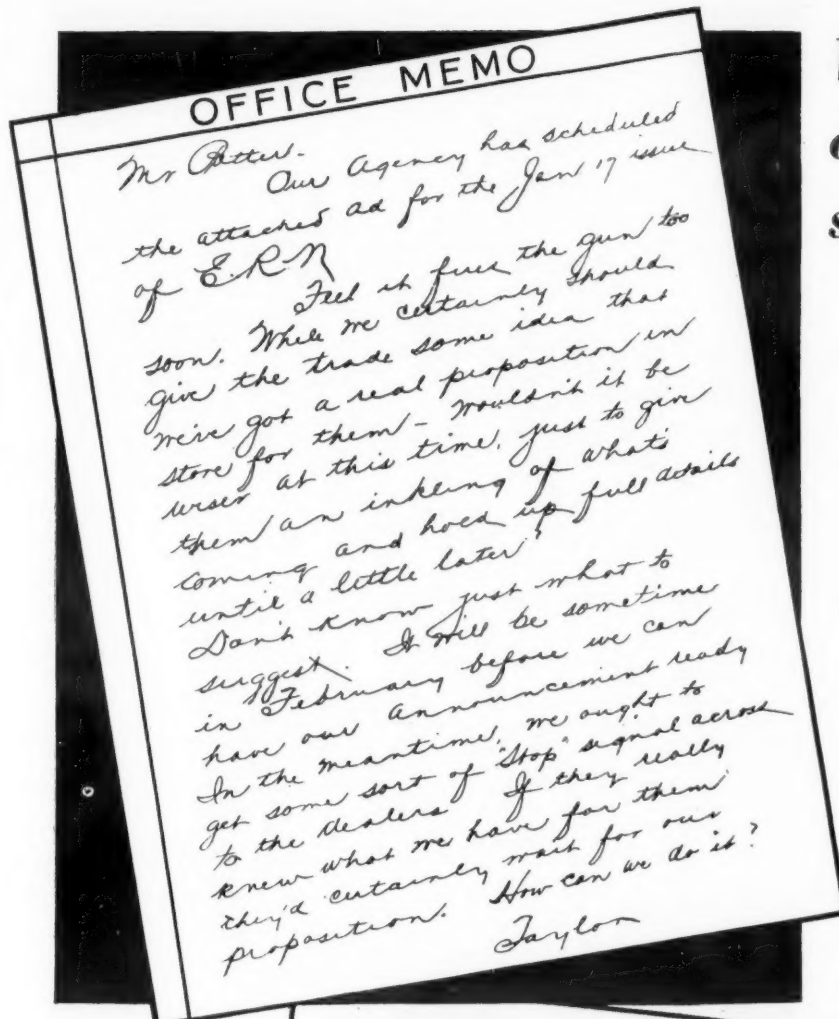
OK

Mr. POTTER!

We'll just publish Taylor's letter and yours!...

What more could we say?

Landsheft Advertising Agency, Inc.
BUFFALO, NEW YORK



We invite any Dealer to write us who is interested in obtaining an exclusive, direct factory franchise... which, with the Potter Marketing plan, and the Potter Product, elevates him above the competitive struggle and sets him on a clear road to real profits. To get complete information just as soon as the details of our 1934 Plan are completed, he should send us his name at once.

THE POTTER 1934 LINE embodies

eight beautiful models... competitive in price... but above competitive comparison in utility, features and performance.

POTTER REFRIGERATOR CORPORATION

Buffalo, N. Y.

Nema Recommends Maintenance Of Present Distribution Setup In TVA Project

(Concluded from Page 3, Column 5)

manufacturers have factory owned branches in the territory and handle sales through this medium.

The wholesalers may be electrical wholesalers, specialty wholesalers, hardware wholesalers, and in some cases wholesalers of goods which are handled through department stores.

Retail outlets will consist of electrical contractor dealers, furniture stores, hardware stores, department stores, specialty stores, utilities, mail order houses, music stores, radio retailers, and some others. In considering these channels of distribution, care should be taken not to omit the contractor who does such wiring and other installation work as may be necessary to utilize the appliances and is a man who is especially important in the case of ranges and water heaters.

Sales Resistance

The following are the primary points of sales resistance to be overcome if appliances in greater volume are to be placed in the homes of people living in the Tennessee Valley area.

1. The lack of knowledge on the part of much of the public as to the economical use of these electrical appliances, coupled with the high cost of educational and promotional work necessary to create general acceptance, has been the foremost obstacle to the sale of electrical appliances.

2. Although deferred terms of payment have been liberal the necessary monthly instalments have been a heavy drain on present limited incomes.

3. Most plans for deferred payment require a down payment. Many possible purchasers have not the required amount available.

4. The customary interest and collection charges on instalment payments and cost of handling reverts has made the promotion of sales somewhat unattractive to some dealers and has prevented other dealers from selling these appliances. The cost of repossessing, reconditioning, and reselling is surprisingly high.

5. The necessary wiring and installa-

tion costs in the case of ranges and water heaters are such as to substantially increase the cost of the appliances in place and ready for use in the customer's home.

6. Insufficient store displays and exhibits have prevented as complete an interest being developed in these products as is desirable.

7. The servicing of equipment which follows the sale of refrigerators, ranges, and water heaters has prevented many good dealer prospects from promoting the sale of these appliances. Servicing requires the maintenance of a stock of repair parts and of a force of trained service men.

8. Competitive fuels—natural gas, oil, coal, and wood—are available at lower costs as well as lower cost equipment for their utilization.

General Recommendations

The committee feels it is proper to say that depending upon the extent to which the TVA may decide to cooperate in promoting the use of electrical energy and of electrical appliances within the Tennessee Valley area and so to further manufacturing and sales employment, we consider it entirely practical to develop the details of the plan which should result in greater promotional activity through enlargement of present channels, lower prices and finance charges to the consumer, and a very substantial increase in appliance sales.

Maintain Present Channels of Distribution

Any promotion plan adopted requires the effort which can only be applied through a satisfactory wide distribution through many outlets, and therefore our recommendation that the present channels of distribution be maintained and enlarged we believe, is well based and for the following reasons:

1. To use other channels of distribution would create a most unfavorable public and social reaction from thousands of dealers, wholesalers, and employees throughout the territory who have spent a great deal of time, effort,

and money developing their present businesses. Any resulting unemployment among sales and service people would cause further unfavorable reaction.

2. After having tried every conceivable plan of marketing over a long term of years, the present channels of distribution represent the most economical and most effective methods which manufacturers have been able to develop. Certainly these present channels perform every necessary and useful function and any similar body would have to perform these same operations to be effective. Any other method of marketing these appliances, employed as a substitute for the methods now in use, would not in our judgment result in any substantial saving or better service to the customer, and would destroy an effective continuity of operations.

3. The individual dealer provides a service station to which the users of electrical appliances are accustomed to go and their elimination would result in poorer service and dissatisfaction to users. Electrical appliances not properly serviced fall into disuse and when appliances are either in disuse or intermittent use, the primary object in promoting sales of kilowatt hours is not being accomplished.

4. If the present channels of distribution were voided there would follow a sacrifice in the value of existing stocks of this merchandise in the hands of the present distributors and dealers working great hardships to all in the territory and undoubtedly putting many of them out of business entirely thus causing destruction of tax and rental values in the various communities.

5. The development of substitute channels would impose a serious time handicap on appliance distribution.

Low Cost Appliances

We believe that the manufacturers of electric ranges, electric water heaters, and electric refrigerators are ready to supply to the present channels of distribution in the Tennessee Valley area appliances at prices which will make it possible for them to be distributed to the ultimate users at most reasonable figures.

To widen the market by reaching a lower income stratum the manufacturers of these appliances would select one model from their line of each of these appliances for the purpose of supplying a lost cost unit with less than normal mark-up.

The selection of such units from the

manufacturers' regular lines, rather than building new leader models is considered wise for the following reasons:

1. The selected units as recommended are now in production and new models might readily be six months in preparation.

2. These recommended units are supported by other models, also now in production.

3. Repairs and servicing will be a lesser factor with present, than with new, models and duplication of repair stocks avoided.

4. Uncertainty as to quality and performance is eliminated.

Elimination of Costs

Starting with the manufacturer the various steps in the course of the distribution of these appliances from the manufacturer to the ultimate consumer will each be asked to take a lesser figure if any portion of their cost can be eliminated. In other words, if it becomes easier to sell they will be asked to reduce their cost of distribution.

Because we believe that this program is in the nature of an experiment and that all of its effects cannot be calculated in advance, we desire to restrict the use of these prices by manufacturers and retail outlets to the Tennessee Valley area in which the TVA cooperates.

We also believe that the TVA will see the wisdom of confining their cooperation to those who are at present manufacturing these various appliances. To do otherwise would increase productive capacity, make for unemployment and so defeat one of the primary purposes involved in the entire procedure.

If financing is easier and less expensive that should show its effect in the price to the ultimate consumer so that appreciable savings can be accomplished.

Reducing Cost of Distribution of All Appliances

It has been suggested that the TVA could be helpful in reducing the cost of distribution by:

1. Undertaking the preparation and collaborating in the distribution among the users of electric service in the Valley of booklets, broadsides, and other educational pamphlets, etc., relative to uses of electricity in the home.

2. Financing instalment sales on smallest permissible monthly payments, without interest, down payment, or recourse on repossessions.

3. Assuming wiring and installation costs for ranges and water heaters.

4. Arranging to make the fullest possible use of existing credit, billing, and collecting facilities of the utilities and others.

If these suggestions were to be followed out the saving in the costs of money, billing, collection expenses, etc., could be passed along to the consumer in lower finance charges. The saving to dealers and distributors in promotional expense could also be passed along to the consumer.

Sales Promotion

The final steps, by which we believe the sale of electric current in the Tennessee Valley area could be increased would be more active consolidated promotion of the sale of domestic appliances. For that purpose we recommend the organization of the Tennessee Valley Electric Promotional committee.

Membership on this committee could consist of representatives of the TVA, of the privately owned power companies, of the municipal power systems, of the wholesalers, of the retailers, of the contractors, and a representative of the manufacturers experienced in this type of promotional activity, with a total committee not to exceed 15 but preferably less. Such a step would promote the availability of the best advice in the industry, the coordination of all factors in the field and increased sales of current and appliances.

Promotional Program

We recommend that this promotional committee assume the following tasks which will largely apply to refrigerators, ranges, and water heaters.

1. Prepare promotional plans for the use of all outlets in the Tennessee Valley.

2. Prepare suggested copy for advertising.

3. Prepare such booklets, broadsides, etc., as the TVA may wish to print at its own expense.

4. Provide methods for coordinating sales effort throughout the Tennessee Valley.

We believe that the active operation of such a committee would do more to place appliances in the homes of electrical customers than anything else, including the matter of lower prices.

We find that price alone will not sell these appliances. Adequate selling effort with proper man power is absolutely essential as has been proved throughout the country and particularly in the territory which we are considering. At this stage in the public acceptance of these electrical appliances, the necessity for the character of sales experience and knowledge

possessed by the employees of the present wholesale and retail outlets is necessary to really accomplish the desired results and to sell and service as well as demonstrate the various types of equipment which might be placed in the homes of consumers.

Demonstrations to Users

Furthermore, the use of electrical devices by people previously unaccustomed thereto involves changes in habit which in our experience are always brought about by intensive sales and demonstration work often in the homes of the users themselves. This type of promotional effort will result in continued economic and adequate use of the equipment which we believe is best promoted through our present channels of distribution.

In connection with such a program, we believe it entirely feasible to include the smaller appliances within the scope of this promotional activity. Our particular suggestion on this point is that when financing the sale of a major appliance, such as a refrigerator, a water heater, or a range, other appliances could quite readily be included within the sale and financed as a unit resulting in not only the sale of the major appliance but the placing on the lines of smaller current consuming devices.

Advantages of the Plan

(a) To the consumer and public

1. Education in the use of electrical appliances, with the resultant relief from drudgery and discomfort.
2. Improved home conditions and higher living standards.
3. Lower prices and terms of payment.
4. Increased employment.

(b) To the TVA and other utility companies

1. Greater sales of electrical current and general impetus to its use.
2. Increased market to include people of lower income brackets.
3. Increased employment.

(c) To the distributors and dealers

1. Government assistance in selling the electrical idea.
2. Lower finance rates on all appliances.
3. Increased employment.

(d) To the manufacturers

1. Greater production and use of existing facilities.
2. Increased employment.

Reemployment

Approximately 97 per cent of electric ranges are produced by 11 manufacturers located in the states of Connecticut, Illinois, Indiana, Massachusetts, Michigan, Ohio, and Wisconsin.

We estimate that 90 per cent of the electric water heaters are produced by 20 concerns located in the states of California, Connecticut, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Michigan, New York, Ohio, Pennsylvania, Wisconsin, Georgia, and Washington.

Approximately 90 per cent of electric refrigerators are produced by 17 concerns located in Illinois, Indiana, Massachusetts, Michigan, New York, Ohio, and Pennsylvania.

Increasing employment in the plants of present producers will spread these benefits over a wide area.

Employment in Factories

In the case of electric refrigerators our best information shows that there is a productive capacity in the industry of 2,500,000 units per year and the best results that have been shown in the use of these facilities is a million units per year the figures being for 1933 as an estimate. The average number of employees for the months of August, September, and October is 20,000. In connection with this figure it should be borne in mind that the electric refrigerator business is very seasonal.

To operate the present plants at 100 per cent of capacity would require 47,000 employees. At 75 per cent capacity, 38,000. At 50 per cent capacity, 28,000; and at 25 per cent capacity, 15,000.

In the case of electric ranges, the data to date would seem to indicate that the productive capacity in the industry is approximately 330,000 ranges per year and that the industry is now operating at one-sixth capacity, using 1,800 employees.

If the present plants were worked at full capacity they would employ about 5,400 employees. Of course in connection with this figure care should be taken to understand that many of the present employees are not working a full week whereas the 5,400 employees to put the plants to complete capacity would imply working at full 36 hours per week with the resulting large increase in pay envelopes.

We estimate the productive capacity with respect to electric water heaters at 99,000 units per year and that such capacity would require 800 men for full operation. The present rate of output requires about one-sixth of estimated capacity and utilizes 277 men, many on part time basis.

All of the above figures are estimates only, secured at the request of Mr. Lillenthal.

Presenting . . .

ANSUL METHYL CHLORIDE

the ANSUL CHEMICAL COMPANY'S latest contribution to improved automatic refrigeration

Ansul Methyl Chloride is a worthy companion product to Ansul Sulphur Dioxide, recognized as a standard of high quality throughout the entire refrigeration industry.

Low moisture and acid content of Ansul Methyl Chloride are made certain through the medium of an individual analysis of each cylinder taken before it leaves the plant. Thus, high quality and complete user satisfaction are guaranteed.

Ansul Methyl Chloride is now available in any quantity, spot and contract shipments, in the following sizes of cylinders:

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MARINETTE - - WISCONSIN

Factors in Kitchen Planning are Given By G-E's Designer

CLEVELAND — Kitchen planning, with the aim of creating an efficient, livable "laboratory" for the housewife's cooking operations, is now being carried out with the aid of tested principles and knowledge, according to Victor Civkin, chief designer, kitchen planning department of the General Electric Institute.

Studies in the relation of kitchen size and capacity, placement and use of "work centers" and other factors have provided kitchen designers with data to which they can refer.

No standard sizes of kitchens in relation to their food service capacity can be established, for capacity depends as much upon the way equipment is managed as upon the volume of food handled at one time, says Mr. Civkin, but in planning household kitchen, the following factors should be taken into consideration:

- (1) Available space.
- (2) Number of persons normally living and eating daily in the house. Where the number may be radically changed, as in rented apartments or houses, the number of bedrooms will serve as a guide.
- (3) Frequency and extent of entertaining at meals. A factor in average entertaining capacity is the amount of tableware possessed by the owner; another is the size of the dining space.
- (4) The food capacity and corresponding space requirements of kitchen equipment needed.

Standard Sizes

In practice, according to the G-E kitchen designer, these factors can be reduced to the following approximate dimensions: 8 ft. by 9 ft. 2 in.; 9 ft. 4 in. by 12 ft.; 10 ft. 10 in. by 14 ft.

Mr. Civkin says that kitchen operations arranged in normal sequence are as follows: receiving supplies, storing supplies in cabinets or refrigerators; preparing and mixing foods, cooking, serving, cleaning up, and restoring dishes and foods.

Kitchen equipment should be organized into work centers, each equipped to perform these functions efficiently. These work centers are:

- (1) Food storage, including the refrigerator and storage space for non-perishable foods, utensils and appliances for preparing foods.
- (2) Food preparation center closely associated with, or part of storage center.
- (3) Cooking center comprising the range and space for storing condiments and such utensils as are first used at the range.
- (4) Serving center consisting of a space where dishes ready for table service are assembled.
- (5) Cleaning center including the sink, dishwasher, waste disposal means (incinerator, hopper or garbage receptacle), towel racks or dryer, cleaning utensils and materials and cooking utensils, such as vegetable pans, first used at the sink.

Work Center Arrangements

Theoretically, says Mr. Civkin, the ideal arrangement of work centers is in the following sequence:

Food storage center with its refrigerator is placed nearest the service entrance. A work top at this point on which deliveries can be temporarily placed before being distributed to their proper storage points is desirable. The storage center should be part of, or adjacent to, the food preparation center.

Since water is needed both for food preparation and cooking, the sink may well be placed next to the preparing center, and the range beyond the sink. Work space between sink and range is advantageous for secondary cooking with appliances such as electric toasters, waffle irons, or percolators and to provide clear space on which to place hot dishes removed from the range.

All utensils and supplies should be conveniently stored at the point of first use or duplicated where used frequently at more than one point, says the kitchen planner.

For example, a frying pan is first used at the range, for it is usually heated before food is placed in it for cooking. It should, therefore, be stored at, or very near, the range.

But a saucepan used for cooking vegetables, such as potatoes, is filled with the vegetables at the sink, hence it should be stored near there. Table china such as dinner plates, usually warmed before serving, should be stored near the warming oven.

Placement of Refrigerator

The main food storage refrigerator should be placed in the kitchen as part of the food storage center. Capacity should be based on a minimum of 2 cu. ft. per person normally served, consideration being given to the extent of entertaining, marketing customs, and the client's special requirements.

The food preparing, combining and mixing center consists of a work top, a mechanical food mixer with its various accessories and storage space for bowls, mixing utensils, cutting boards,

flour bin, condiments, and such pans and cooking utensils as are first used at this point. Cabinet space below and above this work top, fitted with appropriate drawers and shelves, is the principal unit.

An electric range is the heart of the cooking center. The capacity of a range is determined by (1) area of cooking top and number of burners or heating elements, which controls the size and number of utensils in use at one time; (2) number and size of ovens, fixing the size of the largest roast or the size and number of pies and cakes that can be cooked simultaneously.

In the cleaning center, dishwasher capacities should permit the washing of either limited or excessive quantities of tableware in one washing in order to take care of normal family use as well as occasional entertaining requirements. They may be located in the kitchen or in the pantry, or in large residences, in both.

Load Factors

All-electric kitchens may have a connected load of 12 to 15 kw., including 8 to 10 kw. for the range. Since the National Electrical Code limits ordinary circuits to 1,500 watts and the new "Standards of Adequacy" recommend 1,000 watts maximum, it is obviously desirable to provide several circuits in addition to the range power circuit, for lighting, portable appliances, and for refrigerator, dishwasher, ventilating fan, clock, and other devices.

These circuits should be planned so that none can be overloaded by the simultaneous operation of more units than they are designed to serve.

A check list of outlets and their approximate capacities follows:

Food storage center: Electric refrigerator outlet. Operating load 100 to 250 watts, starting load may reach 1,500 watts for brief period.

Food preparation center: Duplex convenience outlet above work top for mixing machine 100-350 watts, and for toaster or other portable appliance 500-1,000 watts. Outlet for bracket light 60 watts, with switch.

Cleaning center: Outlet below sink for dishwasher, 300 to 400 watts operating load with 1,200 to 1,500 watts starting load.

Cooking center: Duplex convenience outlet for toasters, percolators, waffle irons, etc., each requiring 500 to 1,000 watts, should have separate circuits to prevent overloading. Range wiring outlet special type on separate power circuit of 8 to 10 kw. Ventilating fan outlet 100 to 200 watts, with switch.

Serving center: Duplex convenience outlet for miscellaneous appliances. Forty-watt light over work surface.

Service pantry: Dessert and salad refrigerator outlet. Duplex convenience outlet for portable cooking appliances.

Central lighting: Ceiling fixtures for 200 watts in kitchen with 3-way switches at service entrance and dining room or pantry door. Ceiling fixture for 100 watts in pantry with 3-way switches at kitchen and dining room doors.

Wall Space All-Important

Most essential part of a well-planned kitchen, says Mr. Civkin, is adequate wall space.

There should be as few doors as possible in the kitchen and none of them should be placed either in the middle of the wall or at the very corners. Doors should be placed approximately 2 ft. 4 in. from the corner, allowing space for work surfaces. Window sills should be about 3 ft. 6 in. from the floor and the top about 7 ft. 6 in. from the floor.

Mr. Civkin points out that it is already a customary rule that bathroom fixtures are placed on plans before locating a door or a window, and that the same should apply to a kitchen.

All equipment should be built-in so as to avoid unnecessary dirt pockets, G-E's chief kitchen designer recommends. Major pieces of equipment should be so placed in conjunction with each other that preparation and cooking are accomplished with a minimum of labor.

Making Kitchen Livable

The problem of making a kitchen a living quarter is solved in individual ways, declares Mr. Civkin.

In a kitchen where a housewife does her own cooking it is advisable to place a planning desk. The planning desk is a table height piece of furniture with spaces for books, radio, stationery, index cards, and telephone. The desk is where the housewife can do her planning of meals, check and allocate expenses and budget, file cooking recipes, and also enjoy a good novel or listen to the radio while her meal is being cooked in the automatic range.

Mechanical ventilation of kitchens has become a requisite, Mr. Civkin states. The fan should be of adequate size and power to effect a complete change of air in 3 to 5 minutes.

The fan should not be placed over a window as it will re-circulate incoming air when the window is open; a better practice is to locate it as far as possible from the window for cross-ventilation. Discharge to the outer air should be located so that odors will not re-enter other windows.

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Seeger

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SAINT PAUL, MINNESOTA

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EDITORIAL AIMS

To encourage the development of the art.
To promote ethical practices in the business.
To foster friendly relations throughout the industry.
To provide a clearing house for new methods and ideas.
To broadcast the technical, commercial, and personal news of the field.

VOL. 11, No. 3, SERIAL NO. 252, JANUARY 17, 1934

Distributors Happy

LAST week readers of ELECTRIC REFRIGERATION NEWS were served with a meaty course in business thinking, as exemplified in letters from leading executives of the various manufacturing organizations in the industry. As recorded in this column at that time, the industry's "big shots" are without exception confident that 1934 will be the biggest year electric refrigeration has ever enjoyed.

In the current issue are published a number of letters from prominent distributors of electric refrigerators. Throughout their letters runs the same tune. Business was fine last year, and will be better next. They even hold forth some hope for companion appliances and—wonder of all wonders—declare that radio has settled down into a stable business!

These statements have a very dissimilar ring from those obtained in interviews with distributors about this time last year. By the end of 1932, it seemed that every distributor with whom we talked was broke, seeking new capital, quitting the refrigeration business, or getting a job driving a truck. Business was rotten, and one couldn't make any money at it if it were good. Radio? Phooey! What a racket!

But now all seems changed. Radio is a stable business. Refrigeration is a profitable business. Air conditioning is a business with a great future. Washing machine franchises paid good dividends in 1933. And occasionally a distributor reports he has had luck selling oil burners, vacuum sweepers, and ranges—although the majority of distributors apparently haven't found themselves in those fields yet.

Now an Established Industry

Consensus of distributor opinion seems to be that the electric refrigeration business is just entering the stage where it can be called an established industry, one in which good sales planning and promotion can be depended upon to produce a satisfactory profit. Turner Barger of Bard & Barger, Inc., G-E distributor in Cincinnati, puts it this way: "A poor guess would be that not until five years from this time will we reach a peak of sales in the industry and 'level out' our sales curve."

Some worry is evidenced regarding the effect of price increases on 1934 sales volume. Comments Ellis Chaney of San Antonio's Southern Equipment Corp.: "Codes permitting manufacturers to work very close together should bring about benefits to the entire industry if manufacturers do not forget the public and pile on too much price." He warns that exorbitant prices on

well-known makes of refrigerators would tend to bring too many manufacturers in the field and cause a chaotic condition generally.

His conclusion: "Dealers, distributors, and the public are very necessary to manufacturers, but distributors and dealers are right now at their mercy—and manufacturers must be careful not to eat their seed corn." Further mention of this matter is made by Mr. Little of the Carolina Kelvinator Co., Inc., in Greenville, N. C., who says, "Resistance to higher prices may reduce unit sales during 1933," even though he anticipates a 1934 volume equal to that of 1933.

Many distributors plan to expand their dealer organizations this year. They evidently expect to devote considerable attention to dealerships in small towns and make their first major attack on that market in 1934. Some distributors, however, indicate that henceforth they will devote more time to strengthening their existing dealers rather than merely increasing the number of their retail outlets.

Air Conditioning's Day Is Coming

As regards air conditioning, distributors are in accord with the manufacturing executives reporting last week—they believe it will gain steadily in public acceptance during 1934, but will not be a real profit maker for several years. A spurt in air-conditioning sales will come, they opine, when John Public's financial condition has shown more substantial improvement. They also expect their first real profits from air conditioning to come from commercial installations rather than from the domestic market. The latter, they say, won't be profitable for some years yet—and they want lower first and operating costs to help open it.

Most distributors are pleased with prospects for beer cooler business in 1934. That it was a helter-skelter affair last year is quite generally agreed. Equipment was new and, in some cases, imperfect. Salesmen had little knowledge of their product, and their presentations were sketchy. And many beer-cooler prospects were proprietors of mushroom establishments which were not good credit risks. C. E. Roach of the Capital City Paper Co. in Springfield, Ill., sums up distributors' opinions of this business in 1934 when he says, "The beer-cooling business should be very good during the next two years at least, and I am inclined to believe the class of business we get will be much better this year, and that the quality of beer coolers sold will be very much improved."

Expect Improvement in Commercial Business

When the general business outlook becomes a bit brighter, commercial refrigeration sales are bound to increase, the distributors agree. To three things they look for betterment of the commercial market—the NRA, approaching obsolescence of commercial equipment installed some years ago, and the increasing acceptance of electric refrigeration by various types of merchants.

Pretty much the same opinion is expressed by distributors on the subject of companion lines. Profit possibilities of oil burners depend considerably upon the distributor's location; in some parts of the country, oil burners are "naturals," while in others they seem to be a losing proposition. Washers and vacuum cleaners are accepted by many distributors as good items for maintaining a satisfactory year-round sales volume. Ranges and dishwashers are still quite new, and distributors believe that a good deal of promotion will have to be done on them before they sell in sufficient volume to show a good profit. The radio business, as we indicated earlier, is excellent.

Summing up the opinions expressed by most of the distributors as to the business outlook for 1934 is the statement of H. G. Bogart, Jr., General Electric distributor in Toledo, at the end of his letter: "I thought I saw a great picture when I entered this business in 1926, but in the light of what has transpired since . . . the picture of the future is 'way beyond any expectation which I had six years ago.'"

Refrigerator Distributors Pleased With 1933 Business, & Predict Banner Year in 1934

(Editor's Note—Opinions on possible trends of refrigeration and companion-line merchandising in 1934 were asked in a questionnaire sent to distributors recently. Questions were: What was your experience in selling refrigerators in 1933? Did you increase or decrease the number of your dealer outlets in 1933? Do you expect further to expand, or contract, your dealer body in 1934? What do you think of the future for selling household refrigerators, air conditioning, beer coolers, commercial refrigeration, companion appliances? Answers start below and appear on pages 7, 8, 9, and 10. Other letters will be published next week.)

Refrigeration Consistently Profitable—Alderman

H. B. Alderman, Inc.
Wholesalers
Sparton Radio
Leonard Electric Refrigerators
769 Main St., Buffalo
Jan. 9, 1934.

Editor:

We are very enthusiastic about the electric refrigeration business. Perhaps it is good fortune that we joined the Leonard line when they first entered the electric refrigeration field several years ago. We have had a steady growth in our electric refrigeration business which has come in very handy as the radio end has, of course, fallen off in the last few years.

Our experience in 1933, in fact all years, was very satisfactory and the refrigeration end of our business was profitable. We have only the domestic line and do not have, what we imagine to be the grief and competition, found in commercial installations.

Our dealer outlets have not increased materially in number but we believe they are beginning to learn what it is all about and each year are doing a better job.

We feel sure on account of the merchandising plans for Leonard this coming year, we will be able to do a great deal more in the smaller towns. It is our feeling for at least two or three years electric refrigeration will be a good specialty.

We have never handled air conditioning, beer coolers, commercial refrigeration, oil burners and know nothing about them. We believe the market is not quite ready for air conditioning. Radio we still have faith in, although the last few years have been very disappointing but the weeding out of the smaller manufacturers and "fly-by-nights" tends to stabilize this business. We have not ventured into oil burners chiefly because of the favorable gas rate with the high B.t.u. content that we enjoy in this territory. We have done some business in electric ranges and feel there is quite a future in this line.

With washing machines we had a brief experience, which was not satisfactory. We find that the more popular machines are being sold direct to the dealer and it is very hard for a distributor to break in on this business, although apparently a great many washing machines have been sold.

We think the market for dishwashers would be very limited and vacuum cleaners seem to be simply a replacement item now with very slow sales.

We are very optimistic about 1934, largely on account of the better frame of mind we find everyone in.

H. B. ALDERMAN,
President.

Refrigeration Has Come Into Its Own—Barger

Bard & Barger, Inc.
General Electric
Refrigerators, Ranges, Dishwashers
801 Race St., Cincinnati
Jan. 10, 1934.

Editor:

So much of news and interest has happened in the Cincinnati refrigeration market in 1933, and we have been so busy securing business, as well as handling it, that much of the interesting news becomes old, unless it is sent through from time to time.

Everyone in our organization enjoys the ELECTRIC REFRIGERATION NEWS so much, I personally feel that we should have contributed some news items of general interest to the industry, more frequently than has been our practice in the past.

Broadly speaking, our experience in selling refrigerators in our entire distributorship, as well as in the Cincinnati area, has been both profitable and satisfactory in 1933. From the profit standpoint we have had the most satisfactory year since 1930. As

near as I can determine the entire refrigeration market in the Cincinnati area saw its largest year in 1933.

We have both increased and decreased the number of our dealer outlets in 1933. We increased the number of smaller dealer outlets, and decreased the number of outlets in our retail area in Cincinnati, Dayton, Springfield, and Columbus. For 1934 we plan not necessarily to reduce the number of dealers, but all of our changes will be made in the direction of securing stronger dealers—where our case is somewhat hopeless at the present time. We will build up those dealers who have possibilities, but have not realized fully, due to weak sales activities.

You asked us for the future of selling:

(a) Household Refrigerators

We feel that household refrigerators have just entered the point where a good increase will be realized from year to year by good selling and merchandising methods.

A poor guess would be that not until five years from this time will we reach a peak of sales in the industry and "level out" our sales curve.

(b) Air Conditioning

We predict that the next five years will be used as the promotional period for air conditioning in the home. In making this statement we refer to summer cooling not winter air conditioning. We look forward, however, to a fast expansion in cooling in those places where a number of people congregate, such as restaurants, hotels, and offices containing a comparatively large number of people.

(c) Beer Cooling

We think this business will be more stable in 1934 when the general effect of a repeal of the eighteenth amendment has determined to what extent beer is going to be affected. In other words we feel that our sales will be made to better credit risks, and that while the total number of installations may be less than in 1933, the unit sales will be greater.

(d) Commercial Refrigeration Equipment

We should have a rapid expansion in this business. It may be interesting for you to note that December was, from the standpoint of volume, the largest month we have had in commercial refrigeration in our distributorship this year.

(e) Companion Appliances

Companion appliances must still prove themselves to the organization specializing in refrigeration. The refrigeration distributor and dealer is finding radios increasingly unprofitable.

The oil burner business seems to be foreign to our type of business, because it requires too much contracting and special engineering.

Ranges and dishwashers properly belong in our complete electric kitchen business, and we are enthusiastic about their possibilities for future volume. How quickly this volume may be secured will depend altogether upon the amount of promotion we individually and collectively are able to do in a given area.

Vacuum cleaners, washing machines, as well as ironers seem to have won a permanent place in the distributor's and dealer's plan of working into a year around volume business, and giving the salesmen something to sell in profitable volume, the year 'round.

Here's hoping for you and ELECTRIC REFRIGERATION NEWS a very prosperous 1934.

TURNER BARGER.

Chaney Suggests Theme For 1934 Advertising

Southern Equipment Co.
San Antonio, Tex.

Jan. 9, 1934.

Editor:

Norge sales for 1933 in southwest Texas exceeded somewhat sales for 1932, and what we expected based on data furnished by Norge Corp. was accomplished by our dealer organization. Operations showed a profit—a very satisfactory one, in fact.

We attribute increased volume in 1933 to a somewhat larger dealer organization, better information on part of older dealers, and greater ability on part of our own men as result of more experience, and the very fine program of sales promotion help by the factory for the dealers through us, and good advertising, including a semi-weekly radio program throughout the year.

Had early 1933 prices been maintained, sales might have been even better for the year, in my opinion. Surely a mistake was made by those who advertised price increase as being imminent.

Theme of 1934 advertisements could well be that prices of electric refrigerators are lower today than in 19—, when no manufacturer's apparatus was as efficient nor as inherently good (Continued on Page 7, Column 1)

OPINIONS

(Continued from Page 6, Column 4)
as practically all manufacturers produce today.

Codes permitting manufacturers to work very close together should bring about benefits to the entire industry if manufacturers do not forget the public and pile on too much price. Known manufacturers can by such a plan hold an umbrella over manufacturers of less prominent makes and the result eventually would be overproduction, reduction in prices, and generally a chaotic situation could be brought about. This happened in the storage battery business when two or three manufacturers whose products were known to all car owners priced a \$9 battery at \$30 and up, which resulted in more and more manufacturers entering the field until there are far too many for any good. Tires took the same route and the big fellows generally have been taking it on the chin. They overcharged for tires and attracted too many manufacturers to enter the field.

Nineteen thirty-four sales on electric refrigerators will depend largely on how ably the established manufacturers handle themselves in association work. Dealers, distributors, and the public are very necessary to manufacturers, but distributors and dealers are right now at their mercy—and manufacturers must be careful not to greedily eat their seed corn.

ELLIS CHANEY.

Dealers Enter New Year Optimistically—Bogart

H. G. Bogart Co.
General Electric
Refrigerators, Ranges, Dishwashers
320 Superior Bldg., Toledo
Jan. 9, 1934.

Editor:

I am a bull, if there ever was one, for 1934. Quite recently I completed a scouting trip through my territory and found to my delight a complete change of attitude on the part of all of our outlets with respect to future business.

It surely was a treat to talk to dealers who have had nothing but pessimism on their chests and find that they now are really convinced that the refrigeration business will be substantial for 1934 and will warrant extra effort on their part to obtain their share of it.

Nineteen thirty-three was quite satisfactory to us in comparison with 1932. My only regret is that we did not recognize as quickly as we should the trend. We lost considerable business last year because we were undermanned and I personally was prone to look upon the spurt which started in April as more or less temporary and for that reason was reluctant to add any more to my organization, as I thought it would be necessary to release them in the fall.

As we all know, the business not only kept coming in but we set some records which we have never approached before, even in the best years. For example, the month of August was our second largest retail month for the year, which was directly the opposite of any previous experience in the seven years I have been in the business.

Possibly our greatest blow in this distributorship last year, outside of the economic upheaval, was the loss of one utility account, which elected to go out of merchandising and which represented 54 per cent of our entire wholesale distribution. This took place in February and after the bank moratorium was lifted we found it rather slim picking in trying to appoint dealers where the above utility formerly represented us.

However, it is interesting to know that in several instances where we appointed dealers to supplant this utility activity, even as late as July, some of the dealers sold two and three times the number of refrigerators in their towns that the utility sold the year previous with several years' experience behind them. Therefore, you can well imagine that we are increasing our dealer representation tremendously for 1934. As a matter of fact, we will probably double it.

Of course I was born in the electrical industry and no one could ever convince me that there is any industry which has brighter prospects for the future than ours. The very fact that the government considers a modernization program, one of electrical development, is ample evidence to me that we really have a business to be proud of. I think there is a great future still in the commercial and conditioned-air field.

Practically all General Electric distributors, like ourselves, are now schooling and drilling their organizations to become experts in all General Electric home appliances. From the salesman's point of view, this is a new deal for him. From our point of view, it is a gigantic experiment, but one which I believe with careful study on our part and constant improvement worked into the weak spots will succeed.

I know that a very large school of thought among merchandising men is that a successful salesman can only sell one thing at a time. It is my

opinion that that is the easiest way to develop sales organizations but is not necessarily the best.

I am absolutely convinced that the thing which we all have endeavored to do for several years, namely, raise the standard of the retail salesman, can best be accomplished by broadening his opportunities. While absolute saturation on any product seems to be impossible in this country, at the same time there is a strong feeling on the part of salesmen who are not always ready to accept statistics that some electrical products have now reached an almost universal use.

The washing machine industry certainly had an eye opener in 1933 and yet hundreds of washing machine salesmen felt that the market was pretty well sold. In this connection you might be interested in knowing that out of several hundred sales of General Electric washing machines at retail we actually only traded in about 25. In other words, all of the other sales went to families who did not own washing machines previously.

And so it goes with the rest of the electrical appliances and it seems quite obvious to me that a well-trained salesman on the full appliance line should be able to make a comfortable living for himself 12 months in the year, if given that opportunity. Naturally the manufacturer must continue to support him with well-planned advertising programs and thus keep alive public interest as they have so successfully done in the case of refrigeration.

I thought I saw a great picture when I entered this business in 1926 but in the light of what has transpired since and the willingness of the manufacturer serving me to have me represent all of the appliances now made by General Electric the picture of the future is way beyond any expectation which I had six years ago.

Enthusiasm is a hard thing to shut off, which in turn makes it rather difficult to end this letter and not continue on, but I think I have told you enough to impress you with the fact that I, for one, believe 1934 will be entirely satisfactory from the standpoint of volume.

H. G. BOGART, JR.

Harbour-Longmire to Push Air-Conditioning Sales

Harbour-Longmire Co.
Oklahoma City, Okla.
Jan. 9, 1934.

Editor:

During 1933 our firm did a considerably larger unit volume on electric refrigeration than has been enjoyed at any time within the last five years. However this was not an altogether profitable season on refrigeration, primarily because of the inclination on the part of the dealers to buy the price end of the line.

We discouraged this more or less successfully, but in spite of our best efforts, too many of the cheaper models were put in service and we presume our experience in that connection was much the same as that of many other distributors who indulged in new models in the cheaper price range.

That is to say excessive service was encountered in proportion to the number of units involved. Our appropriation for distributor service was inadequate, therefore our overhead setup for the year was materially upset.

We would not indicate, however, that our distributor operation for the past year was disappointing or unsatisfactory, because after all the volume of business was considerably in excess of our anticipation.

We sincerely believe that no such conditions will exist in the 1934 season because of the very definite trend on the part of both manufacturer and dealer to build and sell a much higher class of merchandise this season.

In fact we are tentatively advised by the factories that we distribute for that there will be no price line or sub-standard production scheduled this year.

We did increase by at least 25 per cent our dealer outlets during 1933 and expect at least an additional 25 per cent increase in dealer outlets for the 1934 season.

We have recently acquired wholesale distribution of Servel commercial refrigeration and hope to make a very creditable entry into this field immediately.

Air conditioning is to receive a major part of the promotion, as we believe this to have great possibilities for a distributor operating along the lines we do. Electric ranges will receive individual promotion activity by our company as well as some line of washing machines, as soon as a satisfactory distributor connection can be made.

Our program for 1934 is already prepared and in operation and provides for approximately a 75 per cent increase in volume in 1934 over 1933. We are adding additional territory representatives and setting up an unusually large advertising appropriation. We very likely will feature a line of gas floor furnaces, along with the major electrical appliances that we distribute.

HARRY CANUP,
Assistant manager,
Wholesale division.

Grunow Radio Flies Again



When the Johnson Supply Co., Virginia (Minn.) Grunow dealer, had a rush order for some radios, Norris Johnson, son of the dealer, flew to the Kelley-How-Thompson distributorship in Duluth for the merchandise. An hour later, the radios were in Virginia. Before the take-off: Mr. Tate (left) of the distributor's staff, Pilot Johnson, and R. G. Barnes, manager of Kelley's appliance department.

1933 Volume in Duluth Less than '32—Barnes

Kelley-How-Thompson Co.
Wholesale Hardware
309-349 South Fifth Ave. West
Duluth, Minn.
Jan. 9, 1934.

Editor:

We took over the distribution of the Grunow refrigerator about the middle of 1933, and our experience with it has been entirely satisfactory. We are expecting to reap the benefit of

the work we have done during 1934.

We first entered into the distribution of electric refrigeration in 1932, when we became distributors for Majestic, and had a very satisfactory volume of business. For various reasons, however, we decided early in 1933 to make a change, and we therefore lost a good deal of the 1933 business because of making a change.

While the national figures published would tend to show that there were more refrigerators sold in 1933 than 1932, we are satisfied that that was not the case in this territory. In

checking with the power company here who have figures showing all the electric refrigerators connected through their lines, and with the principal refrigeration dealers, all figures tend to show that there were considerably less refrigerators sold in 1933 than in 1932.

As to air conditioning, we are already handling its sale in our heating department. We have been very successful during 1933, and have sold a number of installations. We believe there is a great future ahead of it, but that it will be handled through an entirely different source than the sale of domestic electric refrigerators.

We also handle radio sets, electric ranges, vacuum cleaners, washing machines, and small appliances. The washing machine business was very good in 1933, and we feel there is no question as to the future in this business.

R. G. BARNES,
Manager,
Radio and Electrical Department.

Zehner Expects Sizable Apartment House Sales

Ignition Service & Supply Co., Inc.
Distributors
Majestic Radio and Refrigerator
16-17 Central Ave., Albany, N. Y.
Jan. 11, 1934.

Editor:

We were very well satisfied with the refrigerator business for 1933. We increased our '33 refrigerator business considerably by going after apartment houses, which after all is desirable quantity business.

We finished our 1933 refrigerator business with an order in December for 25 Majestic refrigerators for an apartment house owned by John Mack of Poughkeepsie, N. Y. We have laid the ground work for some nice apartment house business in 1934.

We naturally increased our dealer (Continued on Page 8, Column 1)

Universal Cooler products bear the reputation for good quality and dependability of performance. Such a reputation could have been gained in one way only—faithful operation throughout years of service.



UNIVERSAL COOLER CORPORATION
DETROIT, MICHIGAN BRANTFORD, ONTARIO

MANUFACTURERS OF A COMPLETE LINE OF HOUSEHOLD AND COMMERCIAL REFRIGERATION EQUIPMENT

OPINIONS

(Continued from Page 7, Column 5)

outlets on account of the Grigsby-Grunow Co. awarding us the additional northern territory. I am not entirely sold on increasing dealer outlets for larger volume. If you select your dealer as to sales ability, service, and financial strength, that, I believe is the answer to volume sales.

I really think the entire refrigeration industry is in for a gold rush boom. The industry has really done a billion dollar selling job, but the buying public, while they are thoroughly sold on electric refrigeration, have not been in a position to respond on account of the financial condition of the country.

Should the desired results come from all of the federal agencies that the present administration has organized, anyone connected with the electric refrigeration business cannot help but at least triple their business.

The other appliance you mention, of course, will also enjoy a certain amount of success.

H. J. ZEHNER,
President.

Expects Good Year



A. A. SCHNEIDERHAHN

Farm Loans Will Aid Midwest—Schneiderhahn

A. A. Schneiderhahn Co.
Electric Household Appliance Division
Wholesale Distributors
Atwater Kent Radios, ABC Washers,
and Leonard Refrigerators
11th and Walnut St., Des Moines, Iowa
Jan. 9, 1934.

Editor:

Our volume of electric refrigeration sales in the year 1933 was quite satisfactory, particularly when the conditions in this area are taken into consideration.

We are looking for a material increase in both the number of our dealers and the volume of business in electric refrigeration during the year 1934.

We base our expectation of an increase on the fact that during the last two months over \$26,000,000 has already been paid in cash to the farmers in Iowa as loans on their corn and the further relief measures about to be made effective by the Department of Agriculture at Washington.

In our opinion, the selection of outlets should be limited to dealers who are now equipped or who will equip themselves with service facilities to properly take care of installations made.

Believe that electric refrigeration offers a splendid opportunity to distributors of our type, who are concentrating on the sale of major electric appliances.

We take this opportunity to congratulate you on the splendid work which the *ELECTRIC REFRIGERATION NEWS* is doing, disseminating information and news of the industry.

A. A. SCHNEIDERHAHN,
President.

Little Expects Dollar Volume to Be Steady

The Carolina Kelvinator Co., Inc.
Greenville, N. C.
Jan. 11, 1934.

Editor:

Unit refrigeration sales showed better than 100 per cent increase this year over 1932. We attribute this remarkable increase to two determining factors which were almost simultaneous. I refer to the restoration of public confidence following the national banking holiday and to price appeal.

The psychological effect of these combined circumstances, also taking into consideration that the public was anticipating price increases, resulted in a material increase in sales that proved satisfactory to the entire dealer and sales organization.

That there is a latent buying potential, anxious to purchase electric re-

frigeration, is clearly indicated by our 1934 but we are expecting, under normal circumstances, equivalent dollar volume.

This will require as complete dealer coverage as possible, thoroughly trained dealer sales organizations supplied with complete sales and promotional plans.

In view of the volume experienced during last year we are of the opinion that any increase must come from commercial sales, including air conditioning. We believe that the recovery program will develop this market for an immediate and future satisfactory profit, which together with the anticipated domestic profits should show the dealer sales organization a very satisfactory year during 1934.

JAS. T. LITTLE,
Secretary and treasurer.

Denver Firm Plans to Add Many Dealers

The Auto Equipment Co.
14th at Lawrence, Denver, Colo.
Jan. 10, 1934.

Editor:

Our experience in selling refrigerators in 1933 was both profitable and satisfactory. We were slow in getting

started because of the bank moratorium, but made up for lost time in the summer and fall. Refrigerator sales held up unusually well this fall and winter—doubtless due to the public realization that prices were on their way up.

We have made very few changes in our Norge dealer outlets during the last two years. We have not lost more than three or four dealers in three years and did not add more than two dozen dealers during 1933. We expect to add a number of dealers in 1934.

We believe that 1934 will be the biggest year yet for household refrigeration. In fact, 1934 may prove to be the peak in the domestic field.

We do not anticipate a great deal of business on air conditioning in our territory for several years to come. In most parts of our territory we have not extremely hot weather and we therefore feel that sales resistance to expensive air-conditioning systems will run high, particularly with regard to domestic installations. There will be a market for installations in stores and business organizations of various types when business improves.

We are looking forward to improved business on beer coolers in 1934. We believe that this business in 1934 will be on a more stable basis than it was in 1933.

As business improves we believe

commercial refrigeration will become increasingly profitable. There is a great deal of business which will come into the market as soon as the outlook is a little clearer.

Improved business will also help companion appliances such as radio, oil burners, ranges, dishwashers, vacuum cleaners, and washing machines. Here is our point of view on these various appliances:

Until television comes along, we do not anticipate any boom in radio such as we experienced in 1928 and 1929. The novelty has worn off and radio has settled down to more of a staple rather than specialty business.

The market for oil burners depends a great deal on the territory. There are many factors to consider, such as availability of natural gas, relative price of oil and coal, etc.

Improved economic conditions will help the oil burner business. So far we have preferred to stay out of it, because we do not believe that conditions were right for a promotion of that type in our territory.

Electric ranges are another item which will vary with the territory. Where the public utility encourages the use of electric ranges by low rates, electric ranges will be sold. Where the utility discourages the use of ranges because of the necessity of showing a profit on gas operations the reverse will be true. We have this latter con-

dition to contend with in certain parts of our territory.

We have tried to get ourselves interested in dishwashers but find several obstacles. In the first place the modern kitchen has no place in which a portable dishwasher can be kept.

This means that most dishwashers will be of the sink type, installed at the time the house is built with, of course, some replacement sales. This, however, means that the business will go through the plumber who is notoriously a poor merchandiser. We do not plan to add dishwashers in 1934.

Vacuum cleaners and washing machines are pretty largely replacement items and in our opinion do not justify specialty effort in most localities. We are doing a good business on washing machines and expect to increase this volume materially in 1934.

I. H. PARKS,
Treasurer.

Small Town Dealers Hit Hard in 1933—Sunderlin

The Radio Equipment Co., Inc.
213 W. Jefferson Blvd.
South Bend, Ind.
Jan. 10, 1934.

Editor:

For several years prior to last

(Continued on Page 9, Column 1)

CROSLEY



VENTILATED FRONT

This important feature of all Crosley 1934 models greatly improves the operating efficiency by drawing in cool air from the front and expelling it from the rear, insuring perfect ventilation of the power unit even when the refrigerator is placed in tight-fitting closet or close to wall. It makes for better performance and less current consumption.



THE startling success of the Crosley Shelvador Electric Refrigerator last year will be exceeded during 1934! There is no question about it. For here's Shelvador dressed in *STREAMLINE BEAUTY*. Shelvador with new, added features... Shelvador—in short—in a new, finer, more convenient edition.

Quick, ready sales are written all over these new models. Their breathtaking beauty catch the eye of the housewife. Nothing like it has ever been seen. Not just an "improvement" on former models in smartness... a wholly new and entirely different concept of what the refrigerator ought to look like.

The Shelvador feature, patented and exclusive, is of course the Big Idea in the 1934 Crosley Line. This—and Crosley's quality and value—is what lifted the Crosley during 1933 way up among the biggest leaders in refrigeration. It meant hundreds of thousands of dollars in profit to Crosley dealers... and competitive dealers also have occasion to remember it!

This is the refrigerator of the hour. Its sales message is packed with profit. It is the golden opportunity for refrigerator dealers... and for other dealers who want to enter this field. It is endorsed and approved by the largest, oldest, and most successful refrigerator outlets who pronounce it the outstanding line of the refrigerator world. See your Crosley distributor... this proposition means *real* money to you.

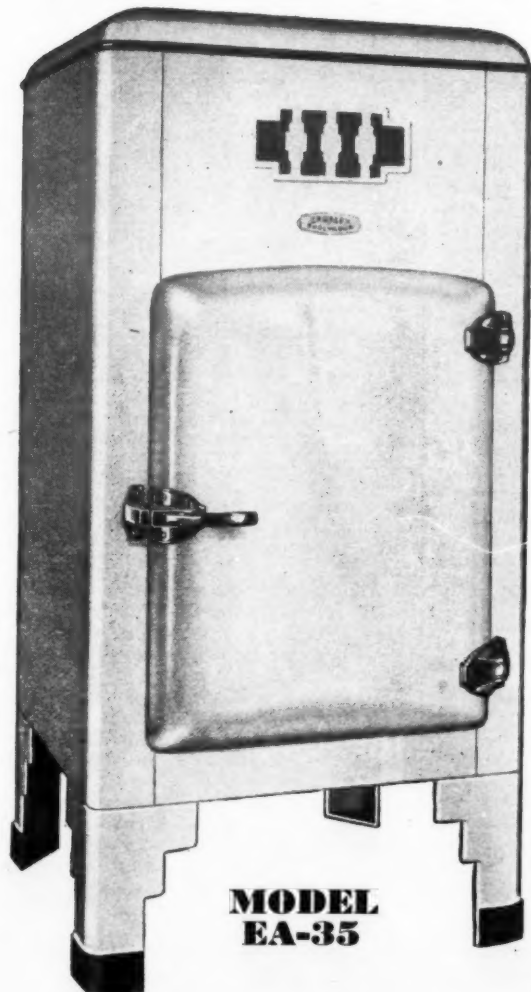
AUTOMATIC ILLUMINATED INTERIOR IN ALL MODELS

only \$99.50

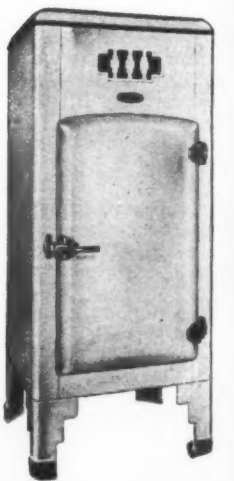
MODEL EA-35

This Crosley Shelvador Electric Refrigerator (shown open above) has a NET capacity of 3.5 cubic ft., with 7½ square ft. of shelf space. Two ice trays, each with 21-cube capacity, or 42 cubes in all. No-stop defrosting control will defrost while operating. Thoroughly insulated

body and door. Porcelain interior. White lacquer exterior with black trimmings. Stamped brass hardware is chromium-plated. *Ventilated Front*... refrigerator may be placed in small closet or close to wall. Illuminated interior. Dimensions: 48" high, 23½" wide, 24½" deep.



MODEL EA-35



MODEL EA-43

Designed for apartment or home. NET capacity 4.3 cubic ft., with 9.15 square ft. of shelf space. Shelvador greatly increases "usable" capacity. Two ice trays, each of 21-cube size; total 42 cubes. Also one double depth tray. No-stop defrosting control; will defrost while operating. Thoroughly insulated throughout. Stamped brass, chromium plated hardware of modern design. Porcelain interior; exterior in white lacquer with black trimmings. *Ventilated front*. Illuminated interior. Dimensions: 54½" high, 23½" wide, 24½" deep. Price—delivered, with one year free service. **\$117.00**

Montana, Wyoming, Colorado, New Mexico and west, prices slightly higher.

The Crosley Radio Corporation - Cincinnati
(Pioneer Manufacturers of Radio Receiving Sets)

POWEL CROSLEY, Jr., President Home of "the Nation's Station"—WLW

ALL PRICES INCLUDE DELIVERY..INSTALLATION..ONE YEAR FREE SERVICE

OPINIONS

(Continued from Page 8, Column 5)

September we were distributors for Majestic electric refrigerators. Since that time we have been without an electric refrigerator, and are just now starting with Kelvinator as distributors in northern Indiana and southern Michigan.

Our experience in 1933 was satisfactory and profitable to us in electric refrigeration. Our small dealers in the very small towns did not function as satisfactorily in 1933 as for example in 1931. This was due to business conditions entirely.

We think that the future of electric refrigeration distribution holds forth a very promising future. On air conditioning we think that it will be sometime before we ever make a profit. We sold some beer coolers this past season but due to the very bad competition we experienced we did not have a very small business.

Majestic did not manufacture commercial refrigeration so we will meet with our first experience with Kelvinator, and frankly, we know very little about commercial refrigeration as of this date.

As far as the radio business is concerned it has shown a marvelous increase over last year. We were for-

merly distributing Majestic, and we are now Philco distributors.

In regard to oil burners we have met with no success. Undoubtedly we will re-enter the field with Kelvinator and yet we do not feel that the oil burner business, at least for us, holds a great deal of future.

In regard to electric ranges we have made several attempts to merchandise electric ranges but we have had a very unsatisfactory experience. We just recently took on the Chambers gas range and have met with good success in accordance with the effort we have put forth on this line.

We are not interested in dishwashers, or vacuum sweepers, but we are interested in washing machines. We have made several attempts to merchandise washing machines but have not met with success.

This is due entirely to our not having the right line and so far as we are concerned we do not think that we will profitably sell washing machines until we get with a manufacturer who is as aggressive in the washing machine industry as for example Kelvinator is in the electric refrigeration business or Philco is in radio.

When that time comes in the washing machine business we do not doubt but that we will do a very satisfactory business.

J. H. SUNDERLIN,
Vice president.

Buehn Sees Good Sales For Several Years

The Louis Buehn Co.
Wholesale Distributors
Gibson Electric Refrigerators
835 Arch St., Philadelphia
Jan. 10, 1934.

Editor:

As you no doubt know, we have been selling the Gibson electric refrigerator for the past two and a half years and our experience in 1933 has been very satisfactory and quite profitable. We were successful in the past season in increasing the number of our dealer outlets and it is our intention to further increase our dealer group during the selling season of 1934.

In our opinion, the future of selling household refrigerators continues to be quite bright and should remain so for the next two or three years.

Radio (we distribute Atwater Kent), we feel has settled down to a very satisfactory business and, if this past season has been a criterion, will be a very desirable asset to a wholesale distributor maintaining a volume of business at a good profit.

We have been distributors for the Quiet May oil burner since last August and we have been extremely pleased with the reaction we have received

from dealers and with the sale of this product. In our opinion, oil burners will provide the major volume for electrical specialty houses, both wholesale and retail, this coming year.

LOUIS E. BUEHN,
Vice president.

Pixley Plans Further Dealer Expansion

The Pixley Electric Supply Co.
Wholesalers of Electrical
Merchandise, Supplies, and Equipment
129-137 E. Chestnut St., Columbus, Ohio
Jan. 11, 1934.

Editor:

Our company was organized in 1932 and did not go into the electrical refrigeration distribution until April of 1933, when we became distributor for the Kelvinator refrigerator line for 22 counties in Ohio.

Our experience since that date has been very satisfactory and we increased the number of dealer outlets turned over to us by our predecessor by three times, and we expect a further expansion this year.

We believe the future for selling all the items mentioned in your letter to be very bright and encouraging.

L. R. KRUMM,
Vice president.

Commercial Replacements Look Profitable—Roach

Capital City Paper Co.
Fourth & Madison, Springfield, Ill.
Jan. 11, 1934.

Editor:

Our business is departmentized and our refrigeration department contributes about 10 per cent of our total volume.

Answering your questions in the order that they are asked I can say that our 1933 refrigeration business was profitable.

Answering question No. 2. Because of our method of operation we do not very aggressively endeavor to establish many dealers as in most instances we sell refrigerators through our numerous store connections. In 1934 we expect to endeavor to expand our dealer organization in the larger towns in which we operate.

Answering question No. 3. I think household refrigeration will hold its own yet for several years, perhaps

Business Profitable



C. E. ROACH

with a small increase for this year and next year. Air conditioning is just beginning to attract attention and the volume of business on this should increase very rapidly within the next several years.

The beer-cooling business should be very good during the next two years at least, and I am inclined to believe the class of business we get on this will be much better this year than last year and that the quality of beer coolers sold this year will be very much improved.

Commercial refrigeration equipment will continue to be as good as it has been because there is beginning to be replacement business on this and more and more business houses are realizing that they cannot afford to be without mechanical refrigeration.

Some manufacturers are including the air-conditioning business in with commercial refrigeration and because of this in these particular instances there will be enormous increases in their volume, because without a doubt the air-conditioning part of the refrigeration business will eventually run into a startling volume of business and eventually will be classed as an industry by itself.

I think the radio business is gradually getting better again with medium-priced radios taking an increasing percentage of the total volume. The oil burner business will very likely increase very rapidly in total volume during the next few years and the same can be said of electric range business.

I would think that the dishwashing business would continue to be rather small for several years yet.

The vacuum cleaner business should at least hold its own because of the replacement demand and I am inclined to believe the washing machine business will fall off some during the next two or three years, especially from the volume done this past year, because as business improves there will very likely be more people go back to the commercial laundries instead of buying washers to do their own washing.

C. E. ROACH.

Rise in Metal Prices Will Help Utah Sales

General Electric Supply Corp.
310-312-314 West Second South St.
Salt Lake City, Utah
Jan. 11, 1934

Editor:

Our experience selling refrigerators in 1933 was satisfactory and profitable.

We moderately increased the number of our dealer outlets. Owing to the fact that the two large utilities operating in our territory, namely the Utah Power & Light Co. and the Idaho Power Co., sell the G-E refrigerator exclusively, we have not the need for many independent dealers. We feel that our territory is quite

(Concluded on Page 10, Column 1)

Streamline Beauty



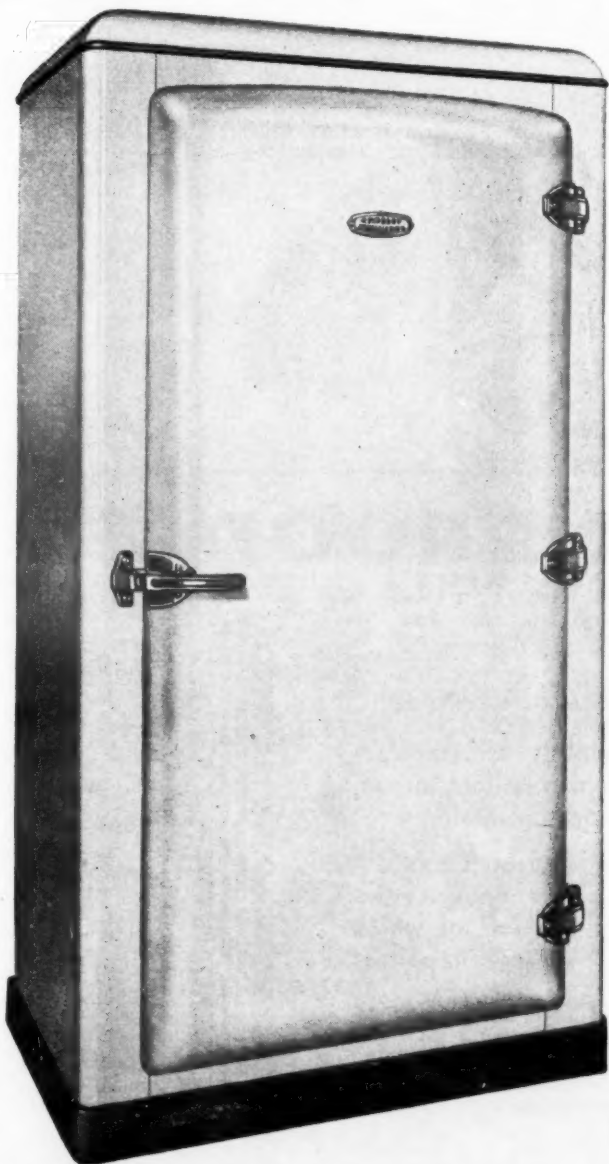
(UNITED STATES PATENT RE-ISSUE NO. 19,008)

THIS—the world's most beautiful refrigerator—incorporates features never before combined in an electric refrigerator. For example:

1. **THE SHELVDOR**... the biggest sales feature in refrigeration. Increases "usable" space about 50% over rated cubic capacity. Think of the price advantage to the Crosley dealer who can sell on a comparative basis of "usable" space. Think of the convenience to the housewife, whose "reach and hunt" days are over.
2. **THE SHELVDOR**... When you want what is behind the chicken, merely put Shelvatray in a level position, place the chicken on it and get what you're after. Shelvatray (patent pending), an exclusive Crosley feature, saves steps and "stoops." Just put what you want on Shelvatray and take it—Shelvatray and all—to table or stove.
3. **THE SHELVBASKET**... Handy for greens, cabbages, carrots and the like. Swings with door. A place for everything and everything in place... that's Crosley's motto. Exclusive, of course. Not refrigerated. (Patent pending.)
4. **THE VENTILATED FRONT**... Increases efficiency and economy of power unit. Stops "churning" of warm air when refrigerator is placed close to wall or in tight closet. Exclusive! Sure!
5. **THE STORABIN**... A place for potatoes and onions and other bulk items. Just another example of Crosley's scientific use of space ordinarily wasted. Not refrigerated, and exclusive. (Patent pending.)

The above are only some of the features. See your distributor. See the new Crosley models.

Model
E-55
showing
both
open
and
closed
views



MODEL E-55

(Shown Open Above)

NET capacity, 5.5 cubic ft. Shelf space, 11.6 square ft. Features: Shelvador; Shelvatray; Shelvabasket; Storabin; self-closing door to ice-tray chamber; no-stop defrosting control, will defrost while operating; three 21-cube ice trays—63 cubes in all; one double-depth tray; thoroughly insulated in door and body; chromium plated hardware of stamped brass; porcelain interior; exterior in white lacquer with black trimmings; illuminated interior. Base rests on floor. Dimensions: 57 1/4" high, 23 1/2" wide, 25 1/2" deep. Specially ventilated front. Price, delivered, installed, one year free service, **\$157.50**

MODEL E-43

NET capacity, 4.3 cubic ft. Shelf space, 9.15 square ft. Incorporates all features of Model E-55. Two ice trays, each holding 21 cubes—42 cubes in all—also one double-depth tray. Chromium plated brass hardware, porcelain interior, white lacquer black trimmed exterior. Base rests on floor. Interior illuminated. Dimensions: 56 1/4" high, 23 1/2" wide, 24 1/2" deep. Price, delivered, installed, one year free service, **\$135.00**

MODEL E-70

NET capacity, 7 cubic ft. Shelf space, 14.9 square ft. Incorporates all features of Model E-55. Has four 21-cube ice trays—84 cubes in all, and one double-depth tray. Hardware is stamped brass, chromium plated. Porcelain interior with white lacquer exterior trimmed in black. Base rests on floor. Dimensions: 58 1/4" high, 32 1/4" wide, 26 1/4" deep. Specially ventilated front. Price, delivered, installed, one year free service, **\$185.00**

Montana, Wyoming, Colorado, New Mexico and west, prices slightly higher.

The Crosley Radio Corporation - - Cincinnati
(Pioneer Manufacturers of Radio Receiving Sets)
POWEL CROSLY, Jr., President Home of "the Nation's Station"—WLW

ALL PRICES INCLUDE DELIVERY..INSTALLATION..ONE YEAR FREE SERVICE

OPINIONS

(Concluded from Page 9, Column 5)
fully covered and are not making any effort to greatly increase our retail outlets.

We regard the future for selling household refrigerators very optimistically.

We are not yet interested in the sale of air conditioning and have not made efforts to secure such a line.

We think the future for sales of beer coolers is fairly good, although we are not making an active effort to sell the cabinets, as we have a working arrangement with two cabinet distributors who are favorable to our cooling equipment.

We think the future for the sale of commercial refrigeration equipment is quite good and expect to enjoy quite a substantial business in 1934.

Our electrical appliance, radio, range, vacuum cleaner, and washing machine business is quite satisfactory and we are confident of an increased volume this year.

We are putting considerable effort into the introduction of dishwashers, realizing that it is going to be rather a slow educational task to assist in creating the popularity, but we have confidence that ere long this will be a very fast selling appliance.

We have never taken on a line of oil burners and are not seriously considering doing so at present.

In this section, which is very much dependent upon mining, conditions vary with the prices of metals and should there be an increase in the price of silver, and should prices of copper, lead, and zinc enjoy a comparable advance, business conditions would be vastly improved and, as we believe, not only in the territories that produce these metals but in the country and the world in general. Therefore, our estimate of future business is partially predicated on the belief that the prices of these metals will be greatly increased.

JACOB A. KALIN,
District manager.

Straus-Bodenheimer Co. To Expand Operations

Straus-Bodenheimer Co.
Houston, Tex.
Jan. 12, 1934.

Editor:

We have been distributors of the Kelvinator refrigerator for the past two years, and are pleased to say that this department has proven profitable. Our Kelvinator business in 1933 doubled the dollar volume of 1932.

We not only increased our dealer outlets, but the dealers of the previous year increased their dollar volume of business.

This year we will add one or two more wholesale men in order that the territory will be "combed" closer, and so that we also will be able to contact the dealers more often, and render such sales assistance as is necessary to increase their business.

We are expecting a good household refrigeration business this year, and we are optimistic over the future of commercial refrigeration, and believe with air conditioning, oil burners, and water coolers that this end of the business has big sales possibilities.

We were appointed distributors of

the Crosley radio last August, and are very pleased with the line, and the possibilities of radio. We believe that the wholesale radio business this year will be better than last year, and that there will be an increase in sales volume of battery and d.c. sets.

We think the automobile radio will be one of the biggest selling items in the radio business.

D. H. STRAUSS,
President.

Brown-Johnston Co. Plans Commercial Department

Brown-Johnston Co.
Spokane, Wash.
Jan. 10, 1934.

Editor:

Our refrigerator sales in 1933 showed a small profit. Perhaps, had our volume been greater, our profit would have increased. We also feel that a small assortment of refrigerators would afford us a quicker turnover, which usually spells larger profits.

We decreased our dealer outlets in 1933, mainly due to the credit situation and the inability of some of the former dealers to meet their obligations. We expect to expand our dealer organization in 1934, as we feel that the economic situation in our particular territory warrants this action.

Naturally, since our plans are to expand our dealer organization, we feel optimistic concerning household refrigerator selling as a business.

Air conditioning will be an important factor this year with us. We plan to enlarge our department and retain the service of a competent air-conditioning salesman.

We are not especially interested in beer coolers.

Commercial refrigeration equipment will be featured together with air conditioning, in a separate department from our household refrigeration.

We are distributors for well-known makes of radios, ranges, vacuum cleaners, and washing machines, and will continue to feature these items as in the past. We may be somewhat interested in oil burners. However, we have not had any experience with this type of merchandise. We are not at all interested in dishwashers at this time.

We have enjoyed splendid business in 1933 on washing machines, radio, and domestic-type electric food mixers, but only a small volume on vacuum cleaners.

L. WEISS,
Sales manager.

Jenkins Music Co. to Seek More Dealers This Year

Jenkins Music Co.
1217-23 Walnut St., Kansas City, Mo.
Jan. 13, 1934.

Editor:

Although our refrigeration selling experience was not profitable in 1933, neither was it disappointing. Our increase in sales for 1933 over 1932 were about the average of the industry.

We showed a slight increase in dealer outlets in 1933 and expect materially to expand our dealer body in 1934.

I sincerely believe that 1934 will be a still better year for household refrigerators than 1933.

As regards air conditioning, I am

rather of the opinion that the industry is still not yet on the right track on air conditioning. The cost of operation of an air-conditioning job that is a complete job, rather than a make shift, is still too great for us to reach a large volume of business.

It is my sincere belief that we are going to have to find some way to decrease the cost of operation before air conditioning will become extremely popular.

As regards beer coolers and commercial refrigeration, we have never entered into this very much in the past, but are planning to organize a complete commercial department for 1934.

The only companion appliances that we have ever handled in the past and contemplate handling in the future, are radios. This, of course, has been a major portion of our business for a good many years.

Incidentally, I would like to tell you that you sent me a copy of the first issue of ELECTRIC REFRIGERATION NEWS that was ever printed. I immediately subscribed for the paper and have received and thoroughly read every copy that has ever been printed from that day to this. How about an Honorary Life Membership?

H. L. SCHMUTZ,
Manager, refrigeration and radio.

Frank Wolf Has Hopes For Increase in 1934

Frank W. Wolf, Inc.
General Electric
Refrigerators, Ranges, Dishwashers
779 Main St., Buffalo
Jan. 13, 1934.

Editor:

After seven years experience in the electric refrigeration business, we are convinced that a prosperous future still lies before us.

Immediately after the banking holiday of last March, we experienced a rush of business that lasted up until November. Our sales for the year increased very satisfactorily over what we had anticipated.

Nineteen thirty-three saw a large expansion of our dealer outlets, with many of our older dealers more than doubling their 1932 sales. We do not expect to materially increase the number of our dealer outlets this year.

Household refrigerators will continue to be the mainstay of our business activity for 1934, with a greater increase in our commercial and range departments. We expect that 1934 will show about the same increase over 1933 as 1933 did over 1932.

FRANK W. WOLF,
President and general manager.

Witte Hardware Official Predicts 1,500,000 Total

Witte Hardware Co.
Kelvinator Electric Refrigerators
704-706 North Third St., St. Louis, Mo.
Jan. 13, 1934.

Editor:

The industry has witnessed the phenomena of experiencing greatly increased sales and profits during perhaps the lowest 12 months of this depression period, while just the reverse is true in every other line of industry or activity.

Therefore, it is altogether logical to expect that if business conditions and purchasing power during 1934 are merely equivalent to 1933, then refrigerator sales should again pass the one million mark and we should again experience the satisfaction of increased sales and increased profits.

However, it is almost the universal belief and expectation that business conditions and buying power in 1934 will far exceed 1933.

That is the trend and indication right now. Therefore it is altogether in order to say that in 1934 we will all go to a new high and I am going to hazard a guess that the sales of domestic units during the year 1934 will total somewhere between 1,200,000 and 1,500,000.

However, the simple rules of projection are not going to get that result. It will be attained only by a continuation of sound policies and hard work.

R. C. HOUCK.

Modern Home Utilities Will Rely on Own Forces

Modern Home Utilities, Inc.
115 Grand St., Waterbury, Conn.
Jan. 13, 1934.

Editor:

Our company has been selling General Electric refrigerators since 1927, and in closing up the year 1933, we feel much encouraged as to the considerable betterment in business that we are expecting in 1934.

We do not believe that we will be disappointed. Our operation in Connecticut is largely supported by our own six retail forces, and everyone of them is up and coming. One thing sure, hard times have not killed our courage and enthusiasm for the job, and we are going to make some money in 1934, if we have an even break.

Our dealer outlets have remained stationary, although there will be some expansive moves made this coming spring, without doubt. We, however,

are for the concentrated type of dealer who makes merchandising his objective, and we are bound to have more of this type.

Commercial refrigeration, with us, is going to see a substantial advance in 1934, and the other appliances akin to refrigeration will prove substantial aids to both distributors and dealers, in our opinion.

We like the editor's philosophy, and our organization is keen on your papers.

J. E. NEELY,
Manager.

Mueller Lumber Co. Sees Big Refrigeration Volume

Mueller Lumber Co.
Davenport, Iowa

Editor: Jan. 8, 1934.

We can advise that we are looking forward to a considerable increase in the electric refrigerator volume for 1934.

We believe that the electric refrigeration industry, composed of household refrigerators and air-conditioning and commercial refrigeration equipment, should be one of the best merchandising lines for the coming year.

M. W. ANDRESEN.

Grubbs Electric Mfg. Co. To Add More Dealers

Grubbs Electric Mfg. Co.
Buckeye Distributors
Greenville, Ohio

Editor: Jan. 10, 1934.

Our experience in selling electric refrigeration during 1933 was, broadly speaking, disappointing. The number of our dealer outlets decreased in '33, but we expect to expand our dealer organization for this year's activities. We believe the future for selling electrical appliances is bright.

BASIL GRUBBS.

Regained Confidence Will Aid Selling—Timmerman

Midwest Timmerman Co.
Distributors

Majestic Radio and Refrigeration
118 Tenth St., Des Moines, Iowa
Editor: Jan. 9, 1934.

The public wants to buy electric refrigerators and a great many other household appliances. Shortage of money and lack of confidence in the future have been the only deterrent.

More money is in the hands of the public now than last year and confidence is gradually being restored—I look for a good year in refrigerators and in all household appliances.

G. J. TIMMERMAN.

Goodling Electric Co. Expects Profitable Year

The H. E. Goodling Electric Co.
York, Pa.

Editor: Jan. 9, 1934.

In answer to your first question concerning our experiences of 1933, may I state that we took on Norge in July, 1933. Prior to that time, we had a complete Copeland franchise, which for the past nine years was very desirable. This past year, however, due to trouble, we were disappointed, and had to work ourselves out of quite a muddle. In spite of this trouble, we sold approximately 125 Norges since July, and as for 1934, we believe that it will be our banner year.

CHARLES G. EYSTER.

Here's One Who Hasn't Anything to Predict

Watkins-Cottrell Co.
119 S. 14th St., Roanoke, Va.
Jan. 9, 1934.

Editor:

We were not very successful in marketing electric refrigerators and we have given up this line.

WATKINS-COTTRELL CO.

Hudson's Presents G-E Cooking School & 'House of Magic'

DETROIT—A cooking school under the personal direction of Edwina Nolan, home service director of the General Electric Institute, and the G-E "House of Magic" presentation directed by E. S. Darlington of the Schenectady laboratories were the two big features of the first week of the Housewares Exposition which occupies the entire tenth floor of the J. L. Hudson department store here.

The exposition, which opened Jan. 8 for a three week's run, was attended by approximately 125,000 people during the first week, according to J. B. Ogden, manager of the electrical appliance department. Sales of electric appliances during the first week were about 35 per cent greater than sales for the first week of a similar show held at about the same time of the year in 1933, Mr. Ogden said.

Miss Nolan's cooking school and the "House of Magic" feature served to spotlight the expanded promotional facilities of the G-E specialty appliance department which is maintained as part of Mr. Ogden's department. The cooking school "classroom" has been re-arranged and fitted with a preparatory work kitchen and advisor's office, and a model laundry with G-E equipment is rapidly taking form.

Crowds at the cooking school, held each afternoon, jammed the 200 seats and overflowed into the aisles at each session.

The G-E motion picture "Just Around the Corner" featuring Warner Bros. studio stars in a scenario built around the all-electric kitchen, was also exhibited throughout the week.

Jean Adair, Frigidaire home service director, will conduct a cooking school during the second week of the exposition, and Pauline Peacock, director of the Kelvin Kitchen, will be in charge of cooking school activities the third week.

Majestic Inaugurates 'Teaser' Campaign

CHICAGO—Grigsby-Grunow Co. is using a "teaser" mailing campaign to stir up dealer interest in the new Majestic refrigerator, soon to be introduced.

First piece, entitled "Ready for 1934," shows views of the Majestic factory with the caption "Majestic has the men, the machines, the brains, the skill—and the determination—to set a new standard for refrigeration in 1934."

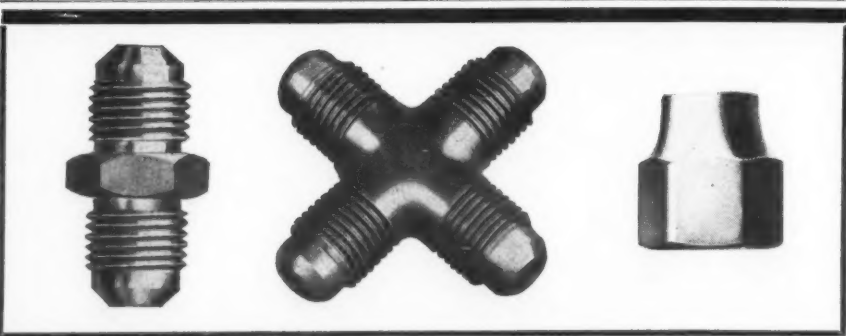
"Preview" is the title given to the second piece, which shows Majestic officials B. J. Grigsby, LeRoy J. Williams, John F. Ditzell, M. E. Paradise, Earl L. Hadley, George Bryant, Floyd Masters, and R. C. Haimbaugh, gathered around a refrigerator (details of which are not visible, however) and the comments of these various officials concerning the new line.

A third piece in the campaign will be mailed the latter part of this month.

Stove Manufacturers At ABC Meeting

CHICAGO—Representatives of more than 30 stove and range manufacturers attended a dinner given Jan. 5 at the Knickerbocker hotel here by the Automatic Burner Corp., manufacturer of ABC oil burners and oil burning stoves.

The design, construction, and merchandising of oil burning stoves was covered by a number of speakers which included J. H. Hirsch, Joseph Hirsch, and Stanley Perry of the Automatic Burner Corp.; Carl Frolich, vice president of the Continental Stove Corp., and H. J. Waff of Norfolk, Va.



SEEPAGE PROOF PIPE AND TUBE FITTINGS

for Every Refrigeration Need

It is good business policy for manufacturers, distributors, and installers to use, always, fittings by Commonwealth.

Barring accident or abuse, Commonwealth fittings may be depended upon for the entire life of the job of which they form a small but very important part.

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**COMMONWEALTH
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DETROIT

Copeland DEPENDABLE ELECTRIC REFRIGERATION

Use only genuine service parts for both household and commercial units. Instantly available from factory stocks.

Look for our forthcoming announcement on our 1934 household line.

Profitable new franchises now being written.

Write—

COPELAND REFRIGERATION CORP., Mt. Clemens, Mich.

COMMERCIAL UNITS

18 Models—

IN CAPACITIES FROM
100 TO 2375 POUNDS
I. M. E. PER 24 HRS.



SERVICE NOTES

Hints on Winter Operation Of Butchers' System

By K. M. Newcum

It has been said and we feel well said that "the conventional butcher shop is the coldest place in the world." Butchers have been educated to keep their stores as cold as possible, for in their estimation "cold alone" preserves meats and foodstuffs, and it is to their interest to take advantage of natural refrigeration during the winter months.

Hence in many butcher shops, no provision for heating will be found. In some shops an inadequate system may be found, yet not used. Others have a little heat in some remote spot. Modern up-to-date food stores are comfortably heated during the winter months and have been well paid for the small expense involved in furnishing heat. Not only are the customers more comfortable while in the stores, and buy more meat, but other savings are also effected.

Consider Summer Conditions

In figuring the refrigeration load for a meat market, maximum summer conditions are considered, and equipment specified to handle the load under such conditions. The low sides are, or should be, of sufficient capacity to maintain satisfactory temperatures within the refrigerator, and at the same time be so arranged and distributed to promote proper circulation of air in conjunction with the baffling system, and maintain a comparatively high degree of relative humidity.

Heat leakage, service and product load, under summer conditions, tend to balance the job in such a manner that satisfactory temperatures are maintained along with proper circulation of air and the correct degree of relative humidity, the two latter controlling the dehydration factor which, with modern evaporators, is becoming more satisfactory as additional surface is specified.

Complaints About Meat

Little thought is frequently given to the results obtained under winter conditions in a poorly heated shop. The installation that performed so beautifully in the summer has no trouble maintaining low temperatures, but the butcher complains of his meats being sticky, slimy, and even spoiling although the temperature in the refrigerator is low.

Odors from meats are given off in the form of a vapor. This vapor in turn is given up to the air and is carried by circulating air to the cold evaporator, where it is condensed out. The rate at which these odors are taken from the meats, depends upon the rate of circulation. The rate of circulation is governed by the temperature difference between the evaporator surfaces and the refrigerator, and of course is directed by the baffles.

Under summer conditions the evaporator temperatures are relatively low, due to longer running periods of the condensing unit. This condition is altered to a great extent under winter conditions, as the running time is greatly reduced, thus a considerably higher evaporator temperature and a proportionately slower rate of circulation which results in sticky, slimy, discolored meats and in many cases a strong "ice box" odor.

Overcome by Heating Stores

There is apparently only one way this condition can be completely overcome, that is by educating the users to heat their stores, maintaining an average temperature of not below 60° F.

Increasing the slope on the baffles tends to speed up circulation, but does not improve the above condition materially, as the evaporator temperature remains high and does not condense the odors as rapidly as under full load, summer conditions.

If the refrigerator has two or more evaporators, one or more of these may be closed off, resulting in a lower temperature on the remaining evaporator surface, hence faster circulation and better refrigerator conditions.

The butcher is aware of this condition and realizes his losses from the

excessive trimming of his meats. The service man is haunted by such conditions and is helpless in most cases for he cannot sell "the dyed-in-the-wool butcher" on the necessity of heating his store.

During this last cold spell many water-cooled compressors froze up and the damages to equipment were considerable. Where the equipment was within the warranty period, some manufacturers, distributors, and dealers repaired the equipment without cost to the user, even though the responsibility, according to the common guarantee, was entirely with the user and could have been avoided had the user heated his place of business.

Common Damages

The common damages due to freezing are ruptured water-cooled condensers, water valves, water-cooled heads, and water lines. In many cases after freezing and thawing, the water entered the refrigerant circuit. In these cases the entire system was badly damaged, the extent of the damages depending on the refrigerant involved.

There isn't much the service man can do to avoid such conditions. However, should he know of a job that is liable to freeze again this season, he can adjust the water valve, that is, open the water valve so that a continuous stream of water flows through the condenser at all times, even on the off cycle.

Water flowing through the pipes will not freeze as readily as water standing in the pipes. The user should be made to understand the necessity for such an adjustment.

To Eliminate Moisture in Methyl or F-12 Systems

Astoria, N. Y.

Jan. 6, 1934.

Editor:

In reference to Service Notes of Dec. 20, although I have never tried a line shut-off valve in back of the dehydrator, as Mr. Newcum suggests, I will describe a method of moisture elimination which works well. Preliminary set-up is the same as Mr. Newcum's, except for elimination of the line shut-off valve, because the line shut-off valve will restrict and the procedure I follow is to eliminate all restrictions.

Consider that the dehydrator has been placed in the liquid line and our point of restriction (by ice formation) is the expansion valve. Open the expansion valve to its full opening (counting the turns to assist in re-setting later). In case of a thermostatic valve, remove the bulb from the line.

Use Blow Torch

Play a blow torch over the restricted area. The pressure in the system should now be equalized. If this is not the case, continue to use torch until pressures do equalize.

Cover the condenser coil if it is air cooled, or restrict the water flow if it is a water-cooled condensing unit. Start the condensing unit, keeping the back pressure at 35 to 40 lbs. with Freon, or 25 to 30 lbs. with methyl chloride.

If the back pressure drops, shut off the condensing unit, inspect evaporator for a cold spot, and play the torch over it. If no point of restriction is found (it is usually found at expansion valve or return bend on evaporator), cover the condenser more securely or shut water off entirely to warm up refrigerant. Keep the liquid line warm. In some cases the liquid line must be warmed up to the expansion valve to keep back pressure at the desired point.

After operating the condensing unit for 20 to 30 minutes with the back pressure 35 to 40 lbs. for Freon, 25 to 30 lbs. for methyl, or until the operator feels that all liquid in the system has passed through the dehydrator at least once, remove and inspect dehydrator.

If considerable moisture is noticeable on the drying agent, repeat the process. If the drying agent shows but slight traces of moisture, it is well to re-pack the dehydrator and place it back in the system for a period of about 24 hours.

Uncover the condenser or open the water valve, re-set the expansion valve, attach bulb, and the system is ready for operation.

Inspections of the drying agent cannot be made too often and must not be delayed too long. If these inspections are not made, the drying agent in a system with much moisture will dissolve and wash out into the system, clogging the lines and strainers.

GEO. C. CAMPBELL.

Marble-Card Builds Splash-Proof Motor

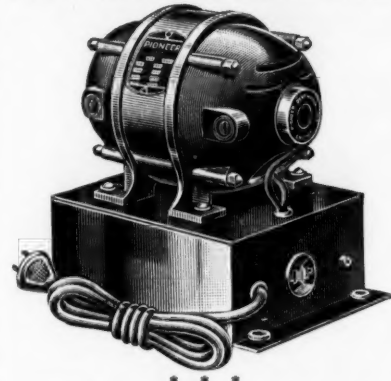
GLADSTONE, Mich.—A new line of motors designed for protection against falling or splashing water has been announced by the Marble-Card Electric Co.

The new type motor is recommended by the company for installation in packing plants, laundries, breweries, paper mills, and other places where falling or splashing water or dirt is likely to damage an open-type motor.

The new motor is fully enclosed excepting for small openings on the lower side of each end-plate which are so designed that splashing or falling water cannot enter the motor. A special cooling system makes it possible to use the same frame sizes for splash-proof motors as for open-type motors of equal rating.

The company manufactures the new motors in both single-phase and polyphase squirrel cage types up to 30 hp.

New d.c.-a.c. Converter



CHICAGO—A new line of converters for changing 32-volt and 110-volt direct current to 110-volt alternating current has just been announced by the Pioneer Gen-E-Motor Corp.

Two series are available; the standard series which has a 110-volt ampere rating which supplies power for operating all usual size alternating current radio receivers and light electrical appliances; and the heavy duty series which has an output of 150-volt amperes and will operate large radio receivers and most domestic appliances.

The units are provided with filter systems designed for noise-free operation of radio receivers. They have additional features such as high-grade ball bearings that are packed with a "lifetime" supply of lubrication.

Ace Covers Shelves With Hard Rubber

NEW YORK CITY—Development of a method of covering wire shelves with black, hard rubber has been announced by the American Hard Rubber Co. of this city.

Advantages of using this covering for household refrigerator shelves are cited by officials of the American Hard Rubber Co. as follows: hard rubber is not affected by temperature variations, it will not deteriorate or corrode, it is odorless and tasteless, and its glossy black color makes a pleasing contrast with white porcelain interiors.

Covering the wire with hard rubber is done by electrical deposition, or plating the rubber, and then vulcanizing it to obtain the desired hardness and finish.

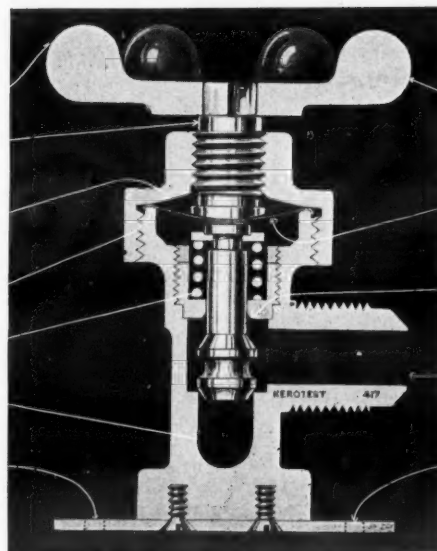
Du Pont Purchases Carrier Degreasing Business

WILMINGTON, Del.—Purchase of Carrier Engineering Corp.'s metal degreasing business by E. I. du Pont de Nemours & Co. has been announced by du Pont officials. The transaction involves the sale of patents, trademarks, and good will of the Carrier vapor degreaser machine, and of the solvent used with it—Cecolene.

The R. & H. Chemicals Departments of the du Pont organization will continue to make Cecolene.

hidden features

of valve design that have established
KEROTEST as a leader in the refrigeration and air conditioning field...



Non Rotating Spindle eliminates wear at seat
Kerotest Type 417 Diaphragm Packless Valve
Listed as Standard by Underwriters' Laboratories

Only 3 1/2 inches high when full open

Strong bronze stem of generous proportions

Radius in forged brass cap fully supports diaphragm when stem is in full open position

Metal Seal of cap, diaphragm and body

Stainless Steel Spring, reciprocating movement of handwheel

Unrestricted openings equal to inside diameter of tubing

Heavy steel mounting flange, Cadmium plated

Large handwheel specially knobbed for firm hand grip

Multiple Metal Diaphragm impervious to all refrigerants — replaceable with valve under pressure

"Pressure Tested" metal to metal back seat when stem is in full open position

Obtainable in large variety of sizes

Four holes in mounting flange accessible for attachment in shallow knockout boxes

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Cincinnati, Ohio, Burbank St. Merkel Bros. Co.
Cleveland, Ohio, 1748 East 22nd St. Williams & Company, Inc.
Decatur, Ill., 133 Williams St. Field & Shook Co.
Denver, Colo., 14th at Lawrence St. The Auto Equipment Co.
Des Moines, Ia., W. 11th & D.M.U.R.R. C. L. Percival Co.
Detroit, Mich., 642 Beaubien St. Refrigeration Accessory & Supply Co.
Fernwood, Miss., 711 No. Tangipahoa St. Enochs Sales Co.
Fort Worth, Texas, 8th & Grove St. Astell Co.
Greensboro, N. C., 714 W. Market St. Home Appliance Service Co.
Houston, Texas, 306 M & M Bldg. Lingo-Walter Company
Indianapolis, Ind., 229 E. South St. F. H. Langenkamp Co.
Kansas City, Mo., 3033 Main St. Forslund Pump & Machinery Co.
Lubbock, Texas, 900 Avenue H. Astell Co.
Milwaukee, Wis., 512 No. Water St. Chase Brass & Copper Co., Inc.
Minneapolis, Minn., 145 No. 10th St. Chase Brass & Copper Co., Inc.
Portland, Ore., 200 No. 13th St. Railway & Engineering Specialties, Ltd.
Newark, N. J., Jefferson & Chestnut Sts. McIntire Connector Co.
New Orleans, La., 813 Poydras St. Enochs Sales Co.
New York, N. Y., 116 Broad St. Melchior, Armstrong, Dessau Co., Inc.
New York, N. Y., 43 Warren St. Paramount Electrical Supply Co., Inc.
Philadelphia, Pa., 1135 Callowhill St. Melchior, Armstrong, Dessau Co., Inc.
Pittsburgh, Pa., 901 Pennsylvania Ave. Williams & Co., Inc.
Portland, Ore., 200 No. 13th St. Harrison Sales Company
San Angelo, Texas, 506 So. Oak St. Astell Co.
San Francisco, Calif., 1077 Mission St. California Refrigerator Co.
St. Louis, Mo., 2817 Laclede Ave. Chase Brass & Copper Co., Inc.
Seattle, Wash., 314 Ninth Ave. No. Harrison Sales Co.
Sioux City, Iowa, 2310 East Eighth St. National Refrigeration Service
Springfield, Mass., 593 Main St. Home Utilities Company
Syracuse, N. Y., 314 W. Fayette St. Syracuse Supply Company
Toronto, Ont., Canada, 82 Ontario St. Railway & Engineering Specialties, Ltd.
Vancouver, B. C. Fleck Bros., Limited
Washington, D. C., 308 10th St., N. W. Refrigeration Equipment & Supply Co., Inc.
Winnipeg, Man., Canada, 156 Bell Ave. Arctic Ice and Fuel Co., Ltd.

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Detroit, Mich. Thomas B. McLaughlin, 18273 Santa Rosa Drive
Los Angeles, Calif. Van D. Clothier, 1015 E. Sixteenth St. (Local Stock)
New York, N. Y. J. A. Strachan, 806 Graybar Building
San Francisco, Calif. A. W. Johnson, Merchants Exchange Building (Local Stock)

FOREIGN REPRESENTATIVES

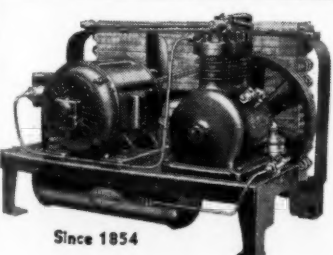
Australia F. C. Lovelock, Ltd., 222 Clarence St., Sydney, N. S. W.
Europe and South America Melchior, Armstrong, Dessau Co., Inc., 116 Broad St., New York, N. Y.
Puerto Rico Refrigeration Supply Co., P. O. Box 328, Puerta de Tierra, San Juan

Look at the features of these Kerotest Valves and you can see they have plenty of "intestinal stamina" . . . the kind of strength that enables valves of extra heavy body construction to successfully withstand a pressure test of 11,250 pounds in full open and closed positions and a durability test of 50,000 cycles open and closed by the Underwriters' Laboratories.

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Write for your copy of the brand new 28 page Kerotest Catalogue—a valuable handbook of information. Every progressive engineer should have a copy for ready reference.

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Complete range of sizes for commercial and domestic applications.
Distributor Franchises still available.

Write to



Lutes Says Department Stores Must Alter Old Principles to Sell Appliances

(Concluded from Page 1, Column 3)

be practical but will be successful—in fact, have been successful in several stores."

One of the chief weaknesses of department store merchandisers is inconsistency, Mr. Lutes pointed out. Any large manufacturer contacting a dozen large and successful stores for an outlet is amazed at the fact that there hardly seems a single policy that is uniformly accepted by all of them, Mr. Lutes said, and apparently each store thinks it is different and has a different class of customers and a different problem of distribution.

Reject Promotion Plans

Department stores are too prone to turn down too many of the specialty distributors' fancy sales promotion plans without due consideration, the speaker declared.

Department stores reject so many thousands of items all the time that the management gets into a negative mental condition. It does not hesitate to refuse to accept proposition after proposition.

"Many of our supposedly successful merchants," said the speaker, "can today give you dozens of reasons why most any progressive and seemingly important plan or idea won't work—out of their vast reservoir of experience they can convince themselves at least that many of the present day proposed schemes of merchandising will not work, or will turn into a calamity of some sort."

Changes in Customers' Views

"The laurels of the future undoubtedly will go to those who still have initiative, courage, and an open mind for the changed times and the changed customers."

"Our customers are the ones who threw the Republicans out of power in no uncertain terms and without any apology whatever. Our customers are the ones who repealed prohibition most emphatically. Our patrons are the ones who have changed their minds about, and their respect for, the old sacred and conservative regime."

"Somehow they just don't respect and reverence the fact that in the old days we were good and successful merchants. They just merely go some other place and do their buying as they see fit, and of whomsoever appeals to them as the best merchants of this day."

"The vice president in charge of sales of one of the leading refrigerator companies, acridly (but unfortunately correctly) said of a large department store: 'At first the store, following the general practice of department stores, exposed their electric refrigerators for sale to their customers.' Thus does the high pressure successful salesman view our timid efforts."

Specialty Salesmen Sell

Specialty selling, Mr. Lutes told the dry goods men, is interesting because in this line of endeavor the salesmen really have to sell. Department stores are notably criticised for accepting business and taking orders for merchandise without doing much in the way of original salesmanship. This cannot be done if the store is to succeed in specialty selling, the speaker warned.

According to Mr. Lutes, one of the executives of a leading department store, when asked what he considered

the most important factor in operating a specialty selling department replied:

"The store management must be sold on the specialty selling idea; and the salesmen must be made to feel that they are just as much a part of the store as anyone on the payroll. They must never get the impression that they are looked upon as employees 'set apart' in some way. The men must be supervised, their work carefully planned, and they must be given every possible help to insure themselves adequate earnings."

Unless the store management is thoroughly sold on the idea and earnestly desires volume in electrical appliances, it would be much better if the store just refused to consider the operation of a specialty selling organization on electrical appliances—or, in fact, the selling of any major electrical appliances, the speaker declared, continuing, he said:

"And unless it is willing to concede the fact that it must have specialty salesmen and supervisors and that these specialty men cannot be recruited from the ranks nor considered in the same light as ordinary department store help—then it had better forget the whole idea of any volume in major electric appliances."

Must Accept Higher Costs

"Unless also it is willing to assume that the advertising cost and the selling cost are to be higher than regular department store men are accustomed to see, then it will never be happy with the operation of a specialty selling department."

"For there is absolutely no doubt that such an organization is the only kind that can produce satisfactory results on major electrical appliances and that the only way to successfully operate a department of this kind is to knowingly treat it as such and be perfectly willing to spend more money for selling, advertising, etc. than would be considered practical in the ordinary department store operation."

Leniency of Expense Items

"And it will be necessary for the store management to impress upon those who have charge of expense control that they should be more lenient in their attitude toward the expense items of such a department. Too often, the management tries unsuccessfully to compromise with the heavy selling expense. Regular department store expense and personnel simply is not readily capable of success as specialty operators."

"The store going into the selling of electrical appliances must be willing to accept all reasonable deferred payment business and must instruct store executives to go after that kind of business in a dignified, yet aggressive and not passive, way."

"The store management must be willing to grant that solicitation in many forms is desirable and necessary in order to get volume in electric appliances. They will have to forget their old scruples against aggressive salesmanship and so-called high pressure selling and must recognize that this merchandise is disposed of by means of expert salesmanship and that, in order to get volume along side our competition, it is necessary for us to resort to many of the methods now employed in selling this line of merchandise."

"Most of the stores who took on direct canvassing by salesmen have abandoned this practice because it

was not so productive as they expected—it is apparently on the wane. But they have been able to successfully replace it by securing more prospects in the store traffic, and to a very large degree, by using the store charge customers and the deferred payment closed accounts. Old customers of appliances form a very substantial source of leads for new sales."

Dignified Solicitation

"Solicitation can be done effectively and yet without detracting from the dignity or reputation of the store. For instance, leads from cooking schools, lectures, and other department activities can be followed up without antagonism."

"And the store, to be successful in selling electrical appliances, will have to direct its advertising department to have a friendly attitude and be willing to unbend enough to meet competition in most ways. It must not hesitate to advertise deferred payments, or feature free demonstrations in the home, or some of the other forbidden things that come under the regular dignified department store ethics. And discount sales and comparative prices may not be entirely banned by the code."

Credit Extension

"The credit office should be directed to be willing and ready to extend itself to aid in getting business. It must not hold back or be too strict in its attitude with customers. Naturally it should not take unnecessary risks, but as long as the loss on deferred payments is much smaller than on open charge accounts (as it is in some stores), then there is plenty of room for a more liberal attitude on the part of the credit managers."

"The store manager should instruct his personnel department to be willing to cooperate in finding men and in keeping them through hard times as well as good times. They must be willing to allow good men to run over their drawing accounts into red in poor weeks or even poor months, with the knowledge that they will come out ahead when the heavy selling season is on."

Non-Productive Periods

"The personnel division will also have to be generous in its attitude toward the supervisors and the leaders of these men. They will have periods of non-productiveness and must be recognized as semi-executives. Salesmen's commissions will run from 7 per cent to 10 per cent and the supervisors an additional 2 to 4 per cent."

A store can also make up its mind that if it is going into the selling of these major electric appliances, the gross profit per cent will not (at first at least) be so great as some other department, the speaker declared. On the other hand, neither will the expense, other than selling, be so great—delivery is often done by manufacturer's distributors; stock is carried and warehoused by them; advertising is partially paid for; on several items the manufacturer guarantees and gives the customer service and repair for many months; space occupied is in most cases small.

Two Plans of Operation

Mr. Lutes projected two possible plans of operating such a department. The first is for the store to adopt it as a regular department, build its own specialty organization and operate it under the regular store system but with special privileges and limitations so far as usual department control is concerned.

The other possibility is to allow some outside selling organization or manufacturer to lease the department or operate it under a resale arrangement. Under this plan, the gross profit will be considerably lower, but naturally most expense items are handled by the leasing concern.

"When you go into this method," the speaker pointed out, "be prepared to expect that the chief fundamental difference between the regular operation in your own organization and the specialty operator will be—the leasee will spend more money, much more in fact, for publicity, and on selling commission, and he will make more radical statements in selling and in advertising, as well as immediately assuming a more aggressive attitude toward high pressuring selling and toward soliciting business."

Offer One or Several Lines

In considering the merchandising of electrical appliances, the department store should decide whether it wants to offer the customer an assortment of most of the leading makes of merchandise, especially the nationally advertised lines, or whether it is willing to tell the customer that it believes one certain brand or make is the best and would recommend that she buy it, Mr. Lutes said.

"Naturally, you will lose some business to nationally known lines by doing this, but you also gain much by having the salesman unqualifiedly recommend the product you sell. For if you carry more than one line, then the salesman has to be very neutral in his comments about each."

"In some of the more accepted items, such as washing machines, etc., the private brands have been very

successful. In electric refrigerators, some stores have had fair success. On the average, however, this kind of operation has been expensive. Much as we might wish to sponsor private brands, we will have to admit that all the national advertising does, after all, have its results."

"Most leading manufacturers are now either bringing out or considering a private branded line of appliances in addition to their advertised brand. This may be the way out for department stores."

Cooperation with Jobbers

"In order to be successful, any department must have the unqualified good will of manufacturers and those who supply merchandise. Naturally this means that this department must operate on the highest possible code of ethics in all trade relations."

"It means that they should maintain the good will of the jobbers and manufacturers by the strict observance of courtesy. There should be no brow beating and no attitude of superiority. All appointments should be completed promptly and the manufacturer's time should be respected."

"While the electric appliance salesmen usually have much time on their hands and are prone to demand a lot of it from the buyers, they should so organize their duties as to handle the situation. Stores need not necessarily feel that these factory representatives are a nuisance and that they waste too much time. In fact, the very nature of the specialty merchandise which they sell makes their problems different from other department store merchandise."

"Volume quotations should never be secured and then orders placed for small quantities. Orders should never be cancelled unjustly."

10 Commandments of Turnover

In the final analysis, turnover is the secret of department store specialty appliance merchandising success, and the ten commandments of turnover are:

1. Locate fast moving lines.
2. Push by salespeople, follow up closely, and sell what our customers want and not what we want them to buy.
3. Keep the stock clean, attractive, and display it properly.
4. Weed out unprofitable lines.
5. Markdown merchandise right and promptly.
6. What current stock lumps carefully.
7. Establish definite price lines.
8. Have stock records that are efficient.
9. Buy only in the quantities you sell. If mistake is made, acknowledge error and rectify—buyer is no good unless he makes mistakes.
10. Never starve your assortment; and never overload it. Anybody (clerk even) can buy two years' supply. Buyer is to keep down investment, make turnover, and profit, and keep up assortment so as not to lose trade or standing.

Commercial Credit Will Finance Apex Sales

BALTIMORE—Contract was signed Jan. 3 by the Apex Electrical Mfg. Co. of Cleveland and the Commercial Credit Co. of this city, whereby the latter organization will handle financing of all time-payment sales made by dealers of Apex refrigerators, washers, vacuum cleaners, and ironers.

Scott to Head Promotion For Wildermuth

BROOKLYN—Samuel Scott, for the past seven years associated with New York City's Frigidaire Sales Corp., has been appointed promotion manager of E. A. Wildermuth Co., Kelvinator distributor here.

Finance Man Tells How to Use Credit Plan as Sale-Maker

MANSFIELD, Ohio—For dealers and salesmen not completely familiar with its deferred payment plan and not adept at using it as a sale-maker, Westinghouse Electric & Mfg. Co. here has issued a special bulletin on the plan as explained by P. W. Jones of Commercial Investment Trust Corp., which handles Westinghouse time-sale paper.

For the sake of clarity, the bulletin is written in question-and-answer form. A resume of the "answers" follows:

More than one household electric appliance can be sold to the same purchaser under the retail finance plan, provided the buyer's standing is satisfactory. The lowest unpaid balance (cash selling price less down payment) that may be financed is \$30.

Varying Terms

Terms vary in accordance with the unit sold and type of installation. They run in equal monthly payments to as long as 36 months on apartment house sales, 24 months on commercial installations, and as short as six months on smaller household appliances.

Standard plan minimum down payment is 10 per cent of the selling price, but 15 or 20 per cent is more desirable. Minimum down payment figures for refrigerators and smaller appliances must be secured from the nearest C.I.T. office.

Finance charges in all cases are based on the unpaid balance, and vary according to the number of months the contract is to run. The charge is the difference between the unpaid balance and amount of contract. A minimum of \$7.50 is required to finance any one transaction.

The purchaser pays the cost of finance—it costs the dealer nothing. Finance charges include the cost of money, plus the finance company's services (credit investigation of purchasers, contract forms, local collections direct from purchasers, etc.).

Apartment House Financing

Purchasers financing commercial or apartment house refrigerator installations must sign an installation certificate which is supplied by C.I.T.

Equipment financed on the whole-sale floor plan can be sold at retail. Appliances covered by a trust receipt may be sold prior to maturity date if, before they are delivered, the dealer sends to C.I.T. a certified check or bank draft for the amount of the time draft.

Under the plan, insurance is provided for the dealer's interest in each retail transaction covering major electric appliances up to the value of the equipment at the time of loss.

When an installment purchaser anticipates maturity of his contract, he receives a refund of the unearned portion of the finance charge. All adjustments with purchasers are controlled by the finance company, and no dealer is obliged to reject a purchaser's request for modification of his contract's terms.

Principal cause of repossessions are: inadequate down payments, dissatisfaction due to possible mechanical troubles or misrepresentations in the sale, inability to make monthly payments. To avoid repossessions, secure adequate down payments, don't oversell, check the prospect's ability to pay.

Best method of quoting terms is to ask the prospect, "How much can you pay down?" and, "How much can you pay per month?" This is preferred to the practice of some salesmen who immediately quote definite terms—the quoting of terms should be held as an ace in the hole.

"Scotch and Soda"

Served With
ICE

THE repeal of the 18th Amendment opens a vast new field for live wire dealers and distributors. Drinks will be served and served cold. That means ice will be at a premium. Write us for

information and literature on the Larkin Coils which will help to serve cold Beer and "Scotch and Soda" with ice.

LARKIN

Refrigerating Corporation

Originator and
Manufacturers

ATLANTA, GA., U.S.A.

U.S. PATENT No. 1,776,238



IF IT'S RUBBER-

ask **Miller**

MILLER'S technical staff has worked closely with every important manufacturer of refrigerators since the birth of the business. Developing special compounds for specific qualities, suggesting improvements in design, spotting possible economies, are daily routine with us. Strict professional respect for confidential data is always maintained.

If you are looking for a rubber compound that is free from odor, oil-resisting, grease-resisting, and even age-resisting—or if you have a peculiar problem in design of a rubber part—let Miller do your worrying for you. If we have not already a formula or a blueprint that answers the purpose, we will find one for you. No obligation. Just write to—

REFRIGERATOR PARTS DEPT.

Miller Rubber Products Co., Inc.—Akron, Ohio

**YOU can't always
be there when
the orders are
planned**



★ ★ but your advertisement in the
1934 REFRIGERATION DIRECTORY
is sure to be on the job for you

"**N**OTHING takes the place of personal contact."—but your salesman can't be everywhere at the same time . . . And how is he going to know, for sure, just when purchases are going to be planned in a prospect's office?

You may know where and when much of your 1934 business is going to break—but 1934 will bring a lot of new business from sources you have not contacted.

The new 1934 Refrigeration Directory and Market Data Book will locate this new business for you.

It will soon be in the hands of buyers and sellers of refrigeration equipment everywhere.

And even if you cannot be present, this Official Guide of the Industry will be "on-the-job" for you wherever and whenever purchases are being planned.



Your customers want this book—

DIRECTORY users are urging us to rush their copies of the new edition to them as soon as possible.

One subscriber writes: "We are anxious to obtain the 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK. When will it be ready for distribution? We have used the copy that we now have a great deal here. We find the Trade Name section particularly valuable, for we do receive many requests for trade names in our Buyers' Service Department, and your publication has proved an adequate source for information in this field."

Already there is a big advance sale of copies of the 1934 DIRECTORY to men in all branches of the refrigeration business. This big early demand is further evidence that your customers need this valuable information—and that your advertising message will get their attention.

Get your copy ready NOW!

The closing date is soon

Forms will close Feb. 1, 1934. Wire for rates on inserts, color, and preferred positions. Page type size 4½"x7¼". One page, \$100. 6 pages, \$540. 12 pages, \$960.

This will be the most useful DIRECTORY AND MARKET DATA BOOK the industry has seen to date. If you have anything to sell manufacturers, distributors, or dealers in refrigeration equipment, it will prove the best advertising investment you can make.

BUSINESS NEWS PUBLISHING CO.

550 Maccabees Bldg., Detroit, Mich.



PATENTS

Issued Jan. 2, 1934

1,941,507. TAPPING APPARATUS. Edward Zahm, Buffalo, N. Y., assignor to Zahm & Nagel Co., Inc., Buffalo, N. Y., a corporation of New York. Application July 22, 1932. Serial No. 624,040. 3 Claims. (Cl. 225-8.)

1. A tapping apparatus comprising a cooling tank adapted to hold a liquid to be dispensed and provided with a liquid inlet, a liquid outlet, and a top provided with an air outlet nozzle, a valve disk engaging the underside of said nozzle and having an air outlet port and a relief valve seat surrounding said port, a cage arranged within said tank and provided on its upper part with a collar secured to said nozzle and engaging with the underside of said valve disk, a relief valve movable toward and from said seat and having a guide stem projecting into said port, a supporting bar having its central part connected with said relief valve, a float arranged within said cage and having upper and lower guide stems guided on said supporting bar and cage and provided with an annular groove, and two shifting levers each pivoted between its ends on one end of said supporting bar and pivoted at its outer end on the cage and engaging its inner end with said groove on the float.

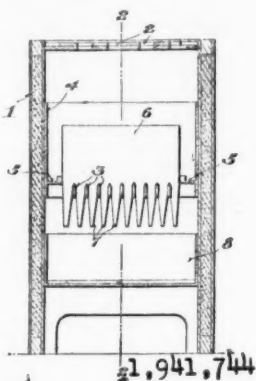
1,941,734. AIR CONDITIONER. Lee J. Black, Beaumont, Tex. Application Dec. 22, 1932. Serial No. 648,476. 12 Claims. (Cl. 261-121.)

1. An air heating unit including a water tank, a heating element thereon, an air passage passing through the tank in one direction, a fan for forcing the air through said passage, hot gas passages passing through the tank at right angles to the air passages and carrying burned combustion gases, a manifold connecting the hot gas passages and discharging to a common outlet, said outlet discharging downward into the water in the tank, and an air inlet admitting air to the manifold and discharging air downward with the hot gases into said water tank.

1,941,744. REFRIGERATION WITH SOLID CARBON DIOXIDE. Frank Heywood, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain. Application Jan. 25, 1933. Serial No. 653,534, and in Great Britain Jan. 29, 1932. 4 Claims. (Cl. 62-91.5.)

4. The method of refrigerating by means of a chilled current of air and carbon dioxide, the latter furnished by a block of solid carbon dioxide evaporating into the former at a substantially uniform rate which comprises supporting the block on a plurality of spaced horizontal transverse bars having sharp-edged tops and bases of substantial width, said bars being composed of metal of high heat conductivity

and being adapted to melt their way through said block, and passing air to furnish the chilled current above and around said block in down draft and



through the spaces under the bases of the bars and, thereby, between dependent unmelted slabs of dioxide passing through the interbar space.

1,941,798. WATER COOLER AND METHOD OF COOLING WATER. Austin Gudmundsen, Milwaukee, Wis. Application Sept. 1, 1932. Serial No. 631,323. 14 Claims. (Cl. 62-91.5.)

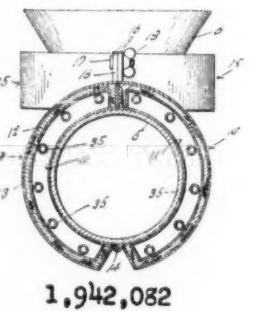
11. The method of refrigerating water in a cooler which comprises subjecting the water to be drawn off to the cooling influence of a solid refrigerant of great capacity to freeze part of the water to produce ice, and then utilizing the ice as a secondary refrigerant to continue the refrigerating process after the first refrigerant has been dissipated.

1,941,906. REFRIGERATOR. Isaac Marinsky, Providence, R. I., assignor of one-half to Samuel I. Cohen, Providence, R. I. Application June 23, 1933. Serial No. 677,237. 6 Claims. (Cl. 312-183.)

6. In a refrigerating chamber, a cylindrical wall provided with an opening, a door in the opening, an annular track comprising a section upon the wall provided with orifices in its ends, and a detachable section adjacent the door having portions extending into the orifices whereby it is supported by the first section.

1,942,060. METHOD OF COOLING COMPOSITION TILE. George P. Heppes, Chicago Heights, Ill., assignor to The Tile-Tex Co., Chicago Heights, Ill., a corporation of Illinois. Application July 5, 1932. Serial No. 620,842. 11 Claims. (Cl. 62-170.)

1. In a process wherein binder, filler and pigment are mixed under the influence of heat to form a coherent mass which is calendered and cut into unit slabs for the manufacture of composition tile, the improvement which comprises feeding said slabs through a cooling zone wherein opposite faces of said slabs are caused to progressively contact cooling surfaces, removing said slabs after passage through said cooling zone and again feeding them through the cooling zone in contact with the cooling surfaces whereby the temperature of the slabs is reduced to a suitable cutting temperature.



1,942,082. REFRIGERATED MEAT GRINDER. Eugene Biancalana, Richmond Hill, N. Y. Application March 25, 1932. Serial No. 601,229. 1 Claim. (Cl. 257-212.)

A refrigerating attachment comprising a pair of semi-cylindrical hollow sections, refrigerating elements in said sections, hinged connections between a pair of corresponding edges of the sections, so as to swingably connect the sections, and securing means between the remaining edges of the sections.

1,942,083. REFRIGERATED MEAT GRINDER. Eugene Biancalana, Brooklyn, N. Y. Original application March 25, 1932. Serial No. 601,229. Divided and this application Nov. 1, 1932. Serial No. 640,724. 3 Claims. (Cl. 257-212.)

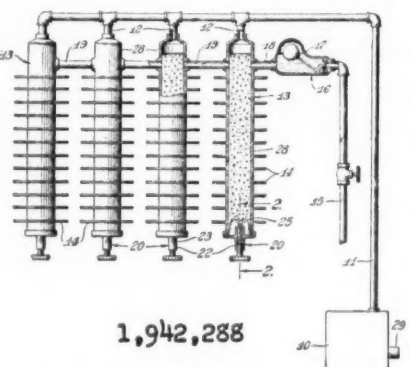
1. A cooling attachment for meat grinders comprising a pair of hinged connected sections, means for clamping the sections against the grinder, said sections being hollow, and refrigerating means therein.

1,942,085. AIR CONDITIONING DEVICE. Charles Edward Carey, Seattle, Wash. Application Aug. 11, 1931. Serial No. 556,402. 10 Claims. (Cl. 183-25.)

1. In a device of the class described, a substantially cylindrical rotor having an open centrally positioned chamber embodying a plurality of peripherally positioned spaced apart, overlapping, foraminous walls forming passage ways therebetween inclined relative to the radii of the rotor, said passageways being in communication with said centrally positioned chamber; a liquid container having liquid disposed to contact said walls; and means for passing gas in said passageways, whereby the gas is caused to change direction in passing through said passageways into said centrally positioned chamber.

1,942,288. COOLING UNIT. David K. Hess, Madison, Wis. Application Oct. 24, 1932. Serial No. 639,387. 2 Claims. (Cl. 62-152.)

1. A cooling unit comprising the combination of an evaporator including a fluid container body having external heat-



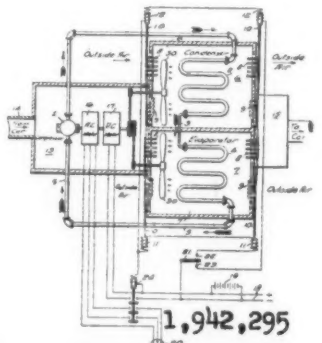
absorbing fins, an evaporator, a conduit interconnecting the evaporator and the evaporator, a fluid supply line opening into the evaporator, a float control valve in the supply line, an air admission valve in the bottom of the evaporator, and an inverted porous cup arranged in the bottom of the evaporator over the air valve.

1,942,290. REFRIGERATOR LIGHTING STRUCTURE. Fred E. Horn, Marshall, Mich. Application Jan. 9, 1933. Serial No. 650,925. 3 Claims. (Cl. 240-6.)

1. In a lighting structure for a refrigerator display case having a transparent front wall, a rail extending parallel to the front wall along the upper edge thereof having a recess formed therein opening at its rear side against the transparent front wall of the refrigerator and at its lower side downwardly along said front wall at the outer side thereof, a socket, and means for pivotally mounting the same in the recess for movement through the open lower side thereof in a plane parallel to said front wall, a light-emitting element in the socket, and a closure member removably attached to said rail for closing the open lower side of said recess.

1,942,295. REVERSIBLE-CYCLE HEATING AND COOLING SYSTEM. Charles Kerr, Jr., Edgewood, and John K. Stotz, Wilkesburg, Pa., assignors to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application March 1, 1933. Serial No. 659,197. 7 Claims. (Cl. 62-6.)

1. A reversible-cycle refrigerating and heating system comprising the combination, with a room to be cooled or heated, of a refrigerating unit comprising a con-



denser and an evaporator disposed in side-by-side relation, means for providing separate chambers for said condenser and said evaporator, two sets of closure means in each end of each of said chambers, the two outer sets of closure means of the condenser chamber and the two inner sets of closure means of the evaporator chamber being open for refrigeration and closed for heating, and the remaining sets of closure means being closed for refrigeration and open for heating, means for simultaneously shifting all sets of closure means according as heating or refrigeration is desired, an air duct from the room leading to the two inner sets of closure means at one end of the condenser and evaporator chambers, an air duct leading to the room from the two inner sets of closure means at the other end of the condenser and evaporator chambers, the remaining sets of closure means being exposed to the outside air, and means for maintaining drafts of air flowing from end to end through both the condenser chamber and the evaporator chamber.

1,942,307. REFRIGERATOR. Joannes

Emmerick Wolf Reech, Chateaufort, France, assignor to Societe Anonyme de Conservation Industrielle du Poisson, Paris, France. Application Nov. 11, 1929. Serial No. 406,389, and in France Sept. 14, 1929. 10 Claims. (Cl. 62-104.)

1. A refrigerator more particularly for fish, in which a drum is divided into longitudinal compartments and is mounted for rotation on a fixed hollow shaft which is perforated at its lower part, in order to distribute refrigerating liquid, a cylindrical bucket surrounding and co-axial with the drum and apertured below the hollow shaft at such a height that the liquid contained in the bucket and in the interior of the drum cannot reach the hollow shaft.

1,942,315. BODY CONSTRUCTION. Daniel W. Voltz, Chicago, Ill., assignor to Voltz Brothers, Inc., Chicago, Ill., a corporation of Illinois. Application Aug. 21, 1930. Serial No. 476,749. 8 Claims. (Cl. 62-91.5.)

4. A body construction including side, end, floor and roof walls, partition walls spaced inwardly of the walls of said body construction and joined together to provide a compartment, refrigerant supporting means adapted to receive a refrigerant and having an inlet and an outlet whereby air flowing thereinto through said inlet contacts with the refrigerant to provide a refrigerating medium adapted to flow therefrom through said outlet, a duct leading from said outlet and disposed on one of said partition walls, and means cooperating with the partition walls and the adjacent walls of the body construction to provide independent passages about said compartment, said duct having openings therein respectively communicating with said independent passages whereby the refrigerating medium flowing into said duct from said outlet flows through said openings into said passages to cool said compartment.

Service Company Started By Ex-Copeland Men

CHICAGO — Refrigeration Service Laboratories has been organized here by a number of former Copeland service men as an independent service company with facilities to repair Bishop & Babcock and Penn controls for Copeland household refrigerators, Detroit Lubricator expansion valves, and Apex water regulating valves.

Repair equipment similar to that used by manufacturers of these parts has been installed in this Chicago shop, its managers declare.

The company also carries a stock of Howell capacitor motors, Gilmer belts for various makes of refrigerators, Penn commercial refrigeration controls, and various other replacement parts. Repairs are made within 24 hours, heads of the company claim, and carry a one-year guarantee.

Writer Expects Volume On Air Conditioning

CHICAGO — A good volume of air-conditioning sales in 1934 was predicted by R. P. Vanderpool, financial editor of the Chicago American, when he wrote this in one of his recent columns:

"Air conditioning, it will be noted, has received considerable space in the Chicago American recently.

"For years the writer has believed that air conditioning would be the next great scientific and industrial development in America.

"Progress during the last years has been slower than we thought it would be, but very definite progress, nevertheless, was made. The possibilities for the future are so great as to stagger the imagination.

"If air conditioning does not become one of the major industries of the nation in 1934, we shall miss our guess."

Moser & Suor to Handle Trane Equipment

KANSAS CITY, Mo. — Moser & Suor of this city have just signed a franchise with the Trane Co. of La Crosse, Wis., whereby they become the Kansas territory distributors of Trane room coolers, air-conditioning, heating, and drying equipment.

Charles Walling, refrigeration engineer and formerly manager of the Kansas City office of the Lipman company has joined the Moser & Suor organization in charge of air conditioning.

Distribution of this equipment will be through the heating trade in conformance with the general policy of the Trane Co.

Donald C. Minard and Norbert Downey of the Trane sales department spent last week in Kansas City conducting a school for the Moser & Suor sales organization and dealers.

Gulf Develops New Oil for Appliance Motors

PITTSBURGH — A new lubricant for motors of electric refrigerators, washing machines, mangles, automobile generators, and other motor-driven appliances is being introduced by the Gulf Refining Co. The new product is labeled "Gulf Electric Motor Oil."

According to Wallace Thomas, manager of specialty products for the Gulf company, the new oil is a mineral oil refined by the Alchlor process, and is especially designed for electric motors.

Westinghouse Host To Utility at Air Conditioning Meet

EAST PITTSBURGH, Pa. — A second meeting on air conditioning for utility executives was held last week by the Westinghouse Electric & Mfg. Co. at its East Pittsburgh works. Officials of sales, engineering, and operating departments of the Philadelphia Co. and its subsidiaries were guests.

The response to a similar meeting held a month ago for executives of the West Penn Electric Co. and its subsidiaries prompted the Westinghouse company to hold a similar meeting for officials of the Philadelphia Co.

N. G. Symonds, Westinghouse vice president in charge of sales, was host to the visitors at a luncheon and, at the meeting which followed, introduced other company officials who spoke on air-conditioning problems.

Among the topics discussed were air conditioning as a central station load builder, air conditioning as a desirable load, marketing methods, effective sales tools, national advertising, the experience of some utilities. A demonstration of air conditioners in operation, one of each type manufactured by the Westinghouse company, featured the meeting.

Among the 40 guests were Joseph McKinley, vice president and general manager of the Philadelphia Co.; E. W. Judy, vice president and general manager of the Duquesne Light Co.; Thomas Fitzgerald, vice president and general manager of the Pittsburgh Railways Co.; John Orr, manager of the Equitable Auto Co.; and A. G. Butler, Pittsburgh manager of the Bylesby Engineering & Management Corp.

McQuaid Joins Staff of Republic Steel Corp.

YOUNGSTOWN, Ohio — Harry W. McQuaid has joined the metallurgical staff of Republic Steel Corp. here.

Other changes in the organization include the transfer of Howard W. Burkett from Youngstown to the post of metallurgical engineer of the Buffalo district, appointment of Elmer Larned to a similar position in the Chicago district, and the acquisition of Harold T. Blair, metallurgical engineer, to specialize in tin-plate products.

Karl Kautz, ceramic engineer, has also joined Republic, and will specialize in research and field service on enameling sheets.

Rechbook Manages Servel Branch in Philadelphia

PHILADELPHIA — I. R. Rechbook, formerly commercial sales manager of the Philadelphia branch of Servel Sales, Inc., has been appointed general manager.

Mr. Rechbook succeeds William Duhey who left to become head of the central control department of the Powers Accounting Machine Co.

Trojan Co. Changes Name To Spoehrer-Lange Co.

ST. LOUIS — Due to a conflict of trade names, the newly formed refrigeration valve manufacturer, the Trojan Co., has been changed in name to the Spoehrer-Lange Co., according to H. F. Spoehrer, vice president.



Twelve years ago refrigeration grade sulphur dioxide containing .05% moisture (500 parts per million) was considered dry.

Seven years ago dry sulphur dioxide contained .01% moisture (100 parts per million).

Today .005% moisture content (50 parts per million) is the MAXIMUM.

Ansul's constant efforts to improve sulphur dioxide for refrigerator work is responsible for this changed standard.

Specify Ansul for your next sulphur dioxide requirement. Your satisfaction is guaranteed.

ANSUL
SULPHUR DIOXIDE
manufactured by
ANSUL CHEMICAL CO.
MARINETTE, WISCONSIN

Purest Sulphur Dioxide
EXTRA DRY ESOTOO
VIRGINIA SMELTING CO.
WEST NORFOLK, VA.
76 BEAVER ST., N.Y. 131 STATE ST., BOSTON

at Lower COSTS! precision built
How to save money on Motor, Transmission, Crank, Eccentric and Compressor Shafts: Send us your blue prints, we will send you our prices. Write today. MODERN MACHINE WORKS
156 N. Midw. St., Milwaukee, Wis.

SERVICE—DID YOU KNOW THAT—
COMMERCIAL EVAPORATORS by KRAMER are ALWAYS SHIPPED WITHIN 36 HOURS after receipt of order and most generally on the date of receipt.
Large stocks and manufacturing facilities enable us to give the type of service THAT PLEASES YOU
TRENTON AUTO RADIATOR WORKS
5145 Liberty Ave. Pittsburgh, Pa. 241 West 68th St. N.Y.C. TRENTON, N.J.

Quiet and Dependable

The Leland design recommended for refrigerator drive has a resiliently supported flange mounting that makes the motor surprisingly quiet in operation. No noise. No vibration. No radio interference. Glad to forward one for comparison with motors of other makes
The Leland Electric Co., Dayton, Ohio, U.S.A.
Canadian Address Toronto Cable Address "Leland"
Leland Motors

ALWAYS IMPROVING

There are no "yearly models" in PEERLESS FIN COILS. As experience dictates the PEERLESS FIN COIL is being constantly improved.

NO SOLDERED RETURN BENDS

The first fin coil to eliminate the soldered return bend with its trail of corroded and leaking joints, the PEERLESS now eliminates the soldered reducing nipple on the inlet and outlet connections of the coil. The $\frac{5}{8}$ " tubing of the fin coil is itself reduced to $\frac{1}{2}$ ".

NO JOINT—NO SOLDER—NO REDUCING FITTINGS

When you standardize on PEERLESS FIN COILS, you are always assured of an up-to-the-minute product.

PEERLESS ICE MACHINE CO., 515 W. 35th St., CHICAGO, ILL.

DAYTON V-BELTS



● There is a Dayton V-Belt for all makes and types of refrigerators. A stock is available near you. Send for price list and name of your nearest distributor.

THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO

The world's largest manufacturer of V-Belts

NEW KRAMER PRODUCTS

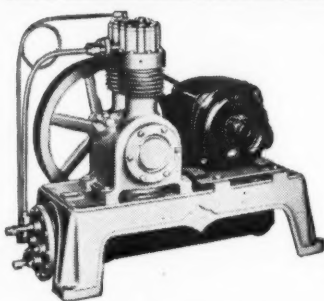
Ice Cube Makers

180 and 288 lb. capacity for 24 hours
720 and 1125 cubes per freezing

Bottle Cooling Coils

SEND FOR CIRCULAR

5145 Liberty Ave. TRENTON AUTO RADIATOR WORKS 241 West 68th St.
Pittsburgh, Pa. Trenton, N.J. N. Y. C.



Style EW—Water Cooled
With Water Cooled Head

STARR FREEZE OUTSTANDING PERFORMANCE

attested by satisfied users

— EVERYWHERE!

Sturdy Condensing Units from 49 to 2868 Lbs. I.M.E., and all other commercial refrigeration equipment—Wall type cases with machinery—A beautiful household line of modern, conservative styles—Write for full data.

THE STARR COMPANY

Richmond, Indiana
U. S. A.

Since
1927

COPELAND REPAIRS — REPLACEMENTS

A modern laboratory service for Copeland distributors, dealers and service organizations offering guaranteed repairs and replacements. Latest type factory equipment used. Complete stock genuine parts. Reasonable prices.

Bishop & Babcock controls (household type) \$2.50
Apex water regulating valves 3.50
Penn controls (commercial type) 4.75
American Radiator expansion valves (household type) \$2.50
American Radiator expansion valves (multiple type) 3.50

Howell special capacitor type $\frac{1}{2}$ HP refrigerator motor, NON-RADIO INTERFERENCE \$11.00

Gilmer Belts and Penn Commercial Type Controls of all descriptions. Write for prices. Forty-eight hour service on repairs. Immediate shipment on replacements. Complete stock. All repairs and parts guaranteed to be free from defects in workmanship and material for one year.

REFRIGERATION SERVICE LABORATORIES

412 Rush Street

Chicago, Illinois

THE TRADEMARK OF FOUR PACE SETTERS IN COIL EFFICIENCY

SUR-E-FEX Fin Coils
FAN-E-FEX Diffusing Units
HUM-E-FEX Non-Dehydrating Coils
SAN-E-FEX Air-Conditioning Units

SEND FOR NEW CATALOG DESCRIBING
THESE SENSATIONAL DEVELOPMENTS

REFRIGERATION APPLIANCES, INC.

H. J. KRACKOWIZER, Pres.

1342 WEST LAKE ST., CHICAGO

Continuous Training Service Employed By G-E Department

NEW YORK CITY—Based on the idea that "the man who can do his best (in selling) is the man who knows most about the product and its application," the General Electric air-conditioning department here is abandoning a concentrated course of sales training in favor of a continuous training service, according to A. C. Roy of the department in an article written for *Printers' Ink*.

"We don't believe there are rules in salesmanship," states Mr. Roy. "There are definite and probably fundamental principles. If the salesman understands these principles and their application, and abides by them in the development of his own style of selling, he will be a far better salesman, we believe, than if he were taught to commit to memory a set sales talk."

Name of the salesman training course, aimed at teaching fundamental principles, is "Sales Improvement Service."

Dealers Subscribe for Salesmen

At a nominal charge, all dealers subscribe for the course for their salesmen. Information contained in the bi-weekly instalments is heterogeneous, according to Mr. Roy—it may be concerned with present markets, the products, product application, or an application of the principles of successful salesmanship.

Question-and-answer leaflets are mailed with each bulletin, Mr. Roy explains. Giving the salesman a week to digest the material presented and write their answers, the sheets are collected at the following Monday morning sales meeting.

After discussion of the questions at the meeting, the answers are mailed to headquarters for correction and are then returned to the sales managers with grades indicated.

Salesmen's Grades Recorded

A record is kept, Mr. Roy stated, of all salesman's grades; and if one group is consistently low, the sales manager is instructed to make special effort to raise the average of his salesmen.

In answering his questions, the salesman is urged to "be fair with yourself, to read the lesson at least three times, to let a night elapse before answering, and especially not to crib."

"You have nothing to gain by securing 100 per cent on your answers," reads the advice in the leaflet, "if you fool yourself by referring to the text. You are not answering these questions for us . . . but to check your own knowledge of the subject. You may fool others but only fools fool themselves."

Grades and Sales Correspond

"We have found," declared Mr. Roy, "that the salesmen conscientiously strive to get the most out of the training. Usually high grades on answers to questions correspond with sales volume."

A new man on the sales force is given back issues of the service and asked to digest them thoroughly before starting out to sell, according to Mr. Roy. He then learns canvassing by going out with an experienced salesman. His progress is checked at each weekly meeting.

"Sales managers," Mr. Roy stated, "are hard-boiled about results. If a salesman is losing out, he has to stand up and tell why. Later the sales manager or supervisor will go out on calls with him, give him a hand and set him on the right road to more sales."

As for selling in general, Mr. Roy believes that "there are as many methods of selling—and successful selling, too—as there are kinds of men."

"When a thousand different salesmen go out," he declares, "there will normally be a thousand different ways of telling the same sales story. In its fundamentals it should be the same story, and there should be strict adherence to basic principles of selling."

"One of these principles which we stress perhaps more than any other is that prospects don't buy an oil furnace or an air conditioner because it is a nice piece of equipment; they buy it for what it will do for them."

'Grunow Varieties' Are Prepared for Broadcast

CHICAGO—To encourage use of local radio programs by its dealers and distributors, General Household Utilities Co. here has prepared a number of electrical transcriptions for broadcasting purposes, and is distributing the records free of charge to its wholesalers and retailers.

Called the "Grunow Varieties," the series of records is already in use by 50 dealers and distributors, according to Duane Wanamaker, advertising manager. The programs are of a musical nature, and each record is of sufficient length for a 15-minute broadcast.

QUESTIONS

Oil for a Brine

No. 1478 (Manufacturer, Massachusetts)—"Where can I get further information on the use of oil as a refrigeration brine, which was reported in a recent issue of *ELECTRIC REFRIGERATION NEWS*?"

Answer—Get in touch with E. S. Herman of the Standard Oil Co. of California, 10th & Hope Sts., Los Angeles, Calif. Mr. Herman described this new substance before a meeting of the Los Angeles section, American Society of Refrigerating Engineers, which was subsequently reported in the *News*.

Compressors for Air Conditioning

No. 1479 (Manufacturer, Michigan)—"In our sales work on domestic and small building air-conditioning equipment, we run into a great many prospects interested in mechanical refrigeration."

"We have no desire to manufacture equipment of this sort, and would therefore consider making a tie-up with some concern specializing in the manufacture of machines suitable for cooling residential and other buildings."

"Thus far we have had inquiries requiring up to 20 tons of refrigeration, therefore our connection would have to be able to supply units larger than those ordinarily required for the average size food refrigerating equipment."

"Any such connection would, of course, have to assist us in engineering and making layouts. Can you give us the names of a few such manufacturers that would entertain a proposition to work cooperatively with us?"

Answer—Consult page 299 of the *REFRIGERATION DIRECTORY AND MARKET DATA BOOK* for a complete list of commercial machine manufacturers.

Gas Refrigeration

No. 1480 (Dealer, California)—"Please advise us the names of companies now making gas refrigerators. We understand that there are a number of electric refrigerator manufacturers entering this field, and we would like to make a satisfactory connection."

Answer—At the present time there is only one gas refrigerator on the market, the Electrolux, manufactured by Electrolux Refrigerator Sales, Inc., Evansville, Ind.

McQuay Coils

No. 1481 (Manufacturer, Ohio)—"We would like to have the address of the McQuay Coil Co., makers of commercial low side equipment."

Answer—McQuay Radiator Corp., 1600 Broadway, N. E., Minneapolis, Minn.

Recipe Books

No. 1482 (Distributor, Ohio)—"Will you please advise us where we can obtain recipe books for distribution to our customers. We will want this recipe book without the imprint of any refrigeration manufacturer, as the company which we are representing at the present time has discontinued furnishing recipe books, and we have quite a demand for them."

Answer—Some electrical leagues, utilities, and food companies have issued pamphlets and recipe books for electric refrigeration, but whether they would supply these in quantity such as you propose can only be determined by writing to them.

For instance, a small handy-sized recipe book entitled "Electric Refrigerator Recipes" is published by the Electrical League of Cleveland, Builders Exchange building, Cleveland. Another, "Some New and Unusual Recipes for Your Electric Refrigerator," is published by the Philadelphia Electric Co., 1000 Chestnut St., Philadelphia, Pa.

Larger recipe books, which deal with cooking on the electric range, electric cooker, waffle iron, and the use of other appliances as well as the refrigerator, are "The Art of Living Electrically," published by the Electrical League of Cleveland, and "Modern Menus, the Electric Way," compiled by the Buffalo, Niagara and Eastern Power Corp., Electric building, Buffalo, N. Y.

A small booklet which might be of interest is "Magic Short-Cut Recipes for the Automatic Refrigerator" issued by the Borden Co., 350 Madison Ave., New York, N. Y. This features, of course, recipes made with condensed milk.

Buckeye and Potter

No. 1483 (Distributor, Pennsylvania)—"Please advise me who manufactured the Buckeye electric refrigerator. Did T. Irving Potter have anything to do with its manufacture?"

Answer—Buckeye refrigerators are produced by Domestic Industries, Inc., 282 N. Diamond St., Mansfield, Ohio. There is no connection whatever between this firm and Mr. Potter.

Replacement Parts in Carolina

No. 1484 (Dealer, South Carolina)—

CLASSIFIED

PAYMENT in advance is required for advertising in this column.

RATES: Fifty words or less, one insertion \$2.00, additional words four cents each. Three insertions \$5.00, additional words ten cents each.

INDEPENDENT SERVICE COMPANIES

HALECTRIC Thermostat repair service, Ranco, B & B. Two dollars each, one year guarantee, prompt service. Halectric Laboratory, 1793 Lakeview Road, Cleveland, Ohio.

"Where can we buy refrigerator accessories nearby?"

"At the present time we are interested in a low-priced electric light that can be installed in household refrigerators easily. We have noticed one with a bracket that screws right on the door liner. It has an off-and-on button switch which is operated by the refrigerator door."

Answer—For accessories and supplies in your territory, get in touch with the Home Appliance Service Co., Inc., 714 W. Market St., Greensboro, N. C.

Manufacturers of interior lights for refrigerators are: Arrow-Hart & Hege-man Electric Co., Hartford, Conn., and Cutler-Hammer, Inc., 315 N. 12th St., Milwaukee, Wis.

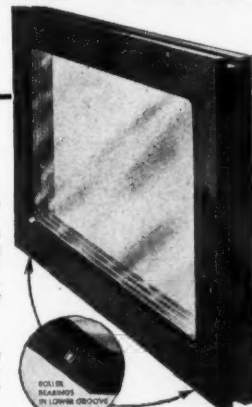
Correspondence School

No. 1485 (Manufacturer, North Dakota)—"One of our mechanics is interested in learning something about electric refrigeration, and we thought you might refer us to some school from which he could take a correspondence course, or to some factory that has published detailed information in this field."

Answer—Utilities Engineering Institute offers a correspondence course in electric refrigeration. Its address is 404 N. Wells St., Chicago, Ill. A number of the large manufacturers have published very informative service manuals, but these are available only to employees of those manufacturers.

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